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NATIONAL RESOURCES DEVELOPMENT

REPORT FOR 1943

PART II. WARTIME PLANNING FOR WAR AND POST WAR

●

JANUARY 1943

NATIONAL RESOURCES PLANNING BOARD

UNITED STATES GOVERNMENT PRINTING OFFICE - - - - - - - - - WASHINGTON, D. C.

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MESSAGE FROM THE PRESIDENT

To the Congress of the United States:

To assist the Congress in the development and consideration of appropriate legislation to achieve normal employment, to give assurance for all our people against common economic hazards, and to provide for the development of our National resources, I am transmitting herewith two reports of the National Resources Planning Board.

The first, "National Resources Development—Report for 1943" presents the results to date of the Board's work on post-war plans and a record of wartime planning activities. The Board proposes measures to meet the problems of the transition period from war to peace and for the longer range development of an expanding economy. It is appropriate that each year the immediate programs contained in the Budget of the United States should be considered by the Congress in the light of much longer range plans and programs. To facilitate such use of this report, I recommend that the report be printed, in accordance with past custom.

We can all agree on our objectives and in our common determination that work, fair pay, and social security after the war is won must be firmly established for the people of the United States of America.

Men in the armed forces and all those engaged in the war effort rightly expect us to be considering their future welfare.

We fight today for security for our Nation and at the same time we can endeavor to give our citizens and their families security against attacks from without, and against fear of economic distress in old age, in poverty, sickness, involuntary unemployment and accidental injuries. We need to look forward to the accomplishment of these objectives—world peace, democratic society, and a dynamic economy.

The second report transmitted herewith, on "Security, Work, and Relief Policies", has been developed over the last 3 years by the National Resources Planning Board, at my request, with the cooperation of the Federal agencies concerned and with the help of citizens with special knowledge and competence in this field. It reviews the accomplishments and experience of the last 10 years, pointing out some of the weaknesses of our security system, and suggesting ways of improving and strengthening the whole program.

Because of their basic importance to our national welfare during the war and after the war, it is my earnest hope that the Congress will give these matters full consideration during this session. We must not return to the inequities, insecurity, and fears of the past, but ought to move forward toward the promise of the future. When the Congress has agreed on procedures for the consideration of these problems, the Executive agencies responsible for the administration of programs in these fields are prepared to provide the Congress with all assistance within their power in devising appropriate ways and means to accomplish these high purposes.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE, *March 10, 1943.*

EXECUTIVE OFFICE OF THE PRESIDENT

NATIONAL RESOURCES PLANNING BOARD

WASHINGTON, D. C.

December 16, 1942.

The PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT:

We have the honor to transmit herewith *National Resources Development—Report for 1943*. In accordance with your instruction, we have concentrated our activities during the last two years on "correlating plans and programs under consideration in many Federal, State, and private organizations for post-war full employment, security, and building America."

In Part I of this document, "Post-War Plan and Program," we have brought together some of those plans both for the transition period immediately following the cessation of hostilities and for the longer range period of post-war development of our expanding economy.

Part II, "Wartime Planning for War and Post War," presents the current planning activities for stabilization and development.

The decisions taken during the war will make possible or impossible the execution of the plans which we as a people make for the peace. We need to see more and more clearly the kind of world toward which we are headed in order to maintain the fighting spirit of our armed forces and the ardor of our industrial workers. We need to stir the imagination and aspirations of all people, free or temporarily enslaved, for new objectives, new goals which can be reached when the war is won. Some people work harder and fight harder when they are on the defensive or fighting for their very lives. Fortunately, we Americans fight best and produce more under the challenge of adventure and with the "offensive spirit."

To win the peace we must call on those deeper resources of the spirit which provide patience and endurance through crisis and which light the future with vision and with hope.

Respectfully submitted,

FREDERIC A. DELANO, *Chairman*
CHARLES E. MERRIAM
GEORGE F. YANTIS

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NATIONAL RESOURCES DEVELOPMENT REPORT FOR 1943

PART II—WARTIME PLANNING FOR WAR AND POST WAR

The National Resources Planning Board is engaged in what has been called "wartime planning"—planning for full use of our national resources to win the war and to win the peace. Like all agencies of the Federal Government, a large part of the energies of the Board and its staff is now concentrated on war problems.

As the planning arm of the Executive Office of the President, the Board is concerned with the long-range as well as more immediate aspects and effects on national development and the national economy of decisions made in the war emergency. Whether we like it or not, emergency actions are taken in ways which determine long-range objectives as well as meet immediate war needs. The planning agency can help to prevent these emergency actions from foreclosing opportunities and to keep related dangers before those responsible for making decisions. Through concurrent studies, like those on problems of industrial location, transportation, and security, improved criteria and procedures can be evolved and put in use.

It is increasingly apparent as the world goes on in this conflict, that we must not only provide the physical things with which to carry on the war, but also to make clear the things for which we are fighting. A nation carrying on total war must have a reasonable assurance of a livable world and satisfactory conditions when the war is over. We have got to provide through planning the means for sustaining the American concept of living, for full employment, security, and the pursuit of happiness, and for giving a reasonable assurance to our people and to other peoples that the Four Freedoms and the New Bill of Rights will be implemented and made real for all persons "everywhere in the world." The enemy is making very large use of propaganda to misinform our people and our allies of the United Nations—saying that the Axis can provide a better world order than we can. It is important that we combat this propaganda with realistic and effective plans of our own for winning the peace.

It is all part of one job, because the decisions taken during the war will largely determine what can be done after the war. The staff and materials developed by the Board are called upon for assistance by the War Production Board, Army, Navy, Defense Transportation, Housing, and other war agencies—because the broad research and planning data and skill in handling that material which the Board has fostered over nine years are now needed and of great value to the war effort.

The usefulness of planning during the war arises from recognition of the role of technical knowledge and synthesis in seeking solutions to the problems of war mobilization and demobilization. In our highly complicated modern society and with the great size and layers of government, we must rely on careful planning to provide the basis for wise decisions by our elected representatives, executives, and military leaders.

The process of planning follows a series of steps:

1. *Getting the Facts*, an analytical stage, gathering and appraising the relative importance and accuracy of data on the subject under discussion.
2. *Statement of the Problem* or "Estimate of the Situation," delimiting the field and stating the objective.
3. *Correlation and Synthesis*, putting facts together to make unified logical alternative proposals for action.
4. *Program and Organization*, or proposals for the timing of proposed actions and advice on the means for administration.
5. *Carrying out the Plan*, involving decision by the appropriate authority and action by executive agencies.

It is a continuing process because the facts and relationships are constantly changing and new adjustments in plans and programs are needed to meet the new situations.

Organization of the National Resources Planning Board [1]

The Board carries on this work as the planning arm of the Executive Office of the President. It is one of the three arms of management (budget, planning, and personnel) set up under Reorganization Plan No. 1 as over-all agencies and parts of the Executive staff.

The Board is composed of three members "from widely separated parts of the country," appointed by the President and confirmed by the Senate. At their invitation two advisers attend all meetings of the Board.

The staff of the Board is under a Director, chosen by the Board, appointed by the President and confirmed by the Senate. Three Assistant Directors and an

[1] See Appendix for names of members, staff, and committees.

Executive Officer are in charge of divisions and management activities.

Division A includes Economic Trends Reporting, Studies of Full Employment Stabilization, the Roster of Scientific and Specialized Personnel, Security and Relief, Youth and Education, The Science Committee and Committee on Conservation of Cultural Resources, the Conference on Demobilization, International Economic Development, etc.;

Division B includes Industrial Location and Conversion Activities, Land, Transportation, Energy; and

Division C includes the Project Review Section, which, with the counsel and advice of the Project Review Committee, reviews and analyzes public works projects and programs proposed by Federal agencies; the Federal Program Section, which maintains current information on the status and progress of Federal construction projects and programs; the State and Local Program Section, which maintains current information on the status and progress of non-Federal construction programs and gives technical assistance to States and local governments in preparing long-range construction programs, and the Water Resources Section, which, with the counsel and advice of the Water Resources Committee, plans and coordinates policy and procedure in water resource development.

The Office of the Director handles all general service of the Board members, publications and information, field offices and, through the Executive Officer, the administrative problems of budget, personnel, offices, etc.

From time to time, technical committees, consisting of experts within and outside the Government, with no fixed membership or tenure, have been set up for studies of land, water, energy resources, relief policy, population changes, transportation, science, technology, etc. For all of the Board's studies great reliance has been placed on a "Panel of Consultants" who are selected for assignment from time to time by reason of their specialized knowledge in the fields under investigation. They are not paid salaries but instead only a per diem allowance for services performed at great saving to the Government.

Through eleven field offices, under the supervision of the Director, the Board cooperates with State and regional planning agencies and carries out its field operations. There are now 44 State and Territorial Planning agencies, 45 active Drainage Basin Committees, seven Regional Planning Commissions or Councils, and numerous special committees or special regional groups engaged in specific investigations for which the field offices act as clearing houses of information and to whom the Board supplies consulting assistance through its regional officers and consultants.

On November 1, 1942, the staff of the Board consisted of 170 active regular employees in Washington and 87 such employees in the Field Offices. The Panel of Consultants or specialists subject to call for occasional per diem employment numbered 248.

Powers and Duties

Under Reorganization Plan No. 1, made effective July 1, 1939, by Public Resolution 20, approved June 7, 1939, the powers of the Federal Employment Stabilization Office and the National Resources Committee were combined in the National Resources Planning Board. Executive Orders 8248 and 8455 assigned additional duties to the Board. A composite of the principal items from these sources indicates that the functions of the Board are:

KEY:
———— From National Resources Committee
— — — — — Executive Orders
. . . . . Federal Employment Stabilization Act of 1931

1. To collect, prepare, and make available to the President such plans, data, and information as may be helpful to a planned development and use of national resources, and related subjects referred to it by the President, and to recommend to the President and the Congress long-time plans and programs for the wise use and fullest development of such resources. (Progress is reviewed in Section II of this report).

2. To advise the President from time to time of the trend of employment and business activity, and of the existence or approach of periods of business depression and unemployment in the United States or in any substantial portion thereof; and to recommend measures leading to the improvement and stabilization of economic conditions. (An annual summary of trends comprises Section II of this report).

3. To collect information concerning advance construction plans and estimates by all Federal agencies, the States, municipalities, and other public and private agencies, to consult with such agencies in developing orderly programs of public works, and to list for the President and the Congress all proposed public works in the order of their relative importance with respect to (a) the greatest good to the greatest number of people, (b) the emergency necessities of the Nation, and (c) the social, economic, and cultural advancement of the people of the United States. (The six-year program of public works and progress of public works planning are included in Section III of this report).

4. To receive and record all proposed Federal projects involving the acquisition of land (including transfer of land jurisdiction) and land-research projects, and, in an advisory capacity, to provide the agencies concerned with such information or data as may be pertinent to the projects.

5. To consult and cooperate with agencies of the Federal Government, with the States and municipalities or agencies thereof, and with any public or private planning or research agencies or institutions, in formulating methods of advance planning, and in carrying out any of its duties and functions, and to act as a clearing house and means of coordination for planning activities, linking together various levels and fields of planning and to make progress reports. (These activities are described in Section IV of this report).

6. These duties of the Board have been increased from time to time by "related subjects referred to it by the President," as in the case of post-war planning.

(*a*) In his message to Congress of January 14, 1942, the President said, "At my direction, it (the Board) is correlating plans and programs under consideration in many Federal, State and private organizations for post-war full employment, security, and building America." (These activities are reported on in Part I of this report.[2])

(*b*) The President, in conferences and memoranda and in allotting monies to the Board from his Emergency Fund, has requested the Board to carry on still other activities or give special attention to:

The Roster of Scientific and Specialized Personnel.

The Committee on Conservation of Cultural Resources.

Assistance to Communities Disrupted by Defense and War Activities.

War Plant Location Review.

Assistance to Planning in Puerto Rico and Alaska.

These activities are reported on in various appropriate parts of this document.

In the performance of these functions, the Board has developed numerous plans and reports which are reviewed in its Progress Reports to June 1941. What has been done since that time shows in services rendered, reports to the President and to other agencies; publications and information to Congress and the public; meetings and conferences, special studies, and planning assistance to Federal, State, local, and private agencies.

Current Reporting

The activities of the Board are covered in reports, memoranda, bulletins, and correspondence:

1. *To the President*, through reports, confidential memoranda, including Quarterly Trends of National Income and Employment, Status of War Construction, Industrial Location, etc.

2. *To the Budget*, advice, upon request, concerning pending bills and projects. Projects have been reviewed by the Water and Land Subcommittees on Evaluation and the Federal Program Section with staff preparation of materials and close collaboration of many Federal agencies. This work is now carried on by the Public Works Project Review Section and Committee.

3. *To Federal construction agencies* for correlation of surveys, investigations, plans, and proposals for projects and legislative authorization of projects through the weekly issuance of a bulletin, Status of Construction Projects—Federal Construction Agencies.

4. *To Federal Works Agency*, former *Housing Coordinator*, and *National Housing Agency* on individual defense public works and "local program reports" for housing projects.

Publications of the Board

Reports

Reports issued since the last Progress Report of the Board are, in the order of their release:

Long-Range Programming of Municipal Public Works, released September 2, 1941.

A 72-page summary of procedures developed through demonstration projects and utilized by the Public Works Reserve and Local Programming Office.

Family Expenditures in the United States, released October 8, 1941.

Data on some 90 objects of family expenditure by income groups drawn from the cooperative study, Consumer Incomes and Expenditures, 1935–1936.

Research—A National Resource, Part III: Business Research, released December 10, 1941.

Prepared under the guidance of a committee of the Social Science Research Council by Dr. John Cover as third in the series on Research.

Progress Report—1939–41. Transmitted to Congress on January 14, 1942.

Records organization and work done during first 2 fiscal years of Board's existence as part of Executive Office and shows status of regional, State, and local planning as of June 1941.

National Resources Development—Report for 1942. Transmitted to Congress on January 14, 1942; available in printed volume March 29, 1942.

Summarizes Board's post-war planning program, and presents Public Works policies and program, functional policies, and annual summary of economic trends.

Regional Resources Development—Report for 1942, released August to October 1942.

Separates for each region, with limited edition bound.

Transportation and National Policy, transmitted to Congress on November 5, 1942.

Report prepared over 3-year period by staff under Dr. Watkins, with guidance of committee with Mr. Owen D. Young as Chairman; 513 pages, with a summary in pamphlet size, 40 pages, concurrently released, in Post-War Series: The Future of Transportation.

Regional Planning, Part X—Pecos River Joint Investigation, released December 13, 1942.

Fact-finding report resulting from cooperative efforts of many agencies under the guidance of a committee and staff of the Board, financed in part by a PWA allotment.

[2] Printed separately, as House Document 128, Part I—*Post-War Plan and Program.*

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Public Works and Rural Land Use, released December 20, 1942.

A series of papers on Rural Works for agriculture, recreation, wildlife, forestry, prepared under the auspices of the Land Committee by the Federal agencies concerned as policy background for long-range programs in each field.

Development of Resources and of Economic Opportunity in the Pacific Northwest, released March 7, 1943.

The results of a special study, made possible by a PWA allotment, conducted by the Pacific Northwest Regional Planning Commission and the staff of the Field Office of the Board, with the cooperation of other Federal agencies, State planning boards and other groups.

Roster of Scientific and Specialized Personnel, released January 20, 1943.

Record of purposes and work of the roster up to time of its transfer to Manpower Commission.

State Planning—1942, released January 26, 1943.

A summary of programs, organization, and progress of State planning agencies drawn from material submitted by those agencies and from Circulars II, VIII, and XII.

Security, Work and Relief Policies, transmitted to Congress on March 10, 1943.

Presents results of 2-year study. Report of Technical Committee on Long-range Work and Relief Policies, 640 pages. Issued concurrently with summary in pamphlet size: After the War—Toward Security.

Industrial Location and National Resources, May 1943.

First volume of series on "Industrial Location and Conversion."

Regional Planning, Part XI: The Arkansas Valley, May 1943.

Regional Planning, Part XII: The Southeast Region, June 1943.

Report by Southeastern Regional Planning Commission prepared by staff of Atlanta office over a period of more than a year.

Regional Industrial Studies, a series, for which reports from Middle Atlantic, Mountain States, Pacific Southwest, and Pacific Northwest have been released.

Pamphlets and Digests

A series of pamphlets concerned with post-war planning has been started which fall into three groups:

1. "After the War";
2. "Full Employment, Security, and Building America" as group headings; and
3. Broadsheets, folders, etc.

After Defense—What?, released August 13, 1941.

Statement of policies and objectives for post-war planning.

After the War—Full Employment, released January 28, 1942. Pamphlet by Dr. Alvin H. Hansen.

Building America—Better Cities, released May 18, 1942.

Statement prepared by Charles S. Ascher, developed from materials in 1942 Resources Development Report.

Building America—Housebuilding Industry, released September 13, 1942.

A paper by Miles Colean of Twentieth Century Fund on bottlenecks and possibilities for a major effort in housebuilding after the war.

Post-War Planning, released September 27, 1942.

Based on 1942 Resources Development Report.

Building America—Transportation, released November 5, 1942.

Digest of Transportation Report. (See above.)

In addition to these pamphlets a reprint of the statement of objectives, *Our Freedoms and Rights*, from the 1942 Resources Development Report has been issued in broadsheet form through the interest of Huxley House. It has also been reprinted by the Office of Facts and Figures (100,000 copies) and by the American City Magazine. It was the subject of the summer issue of *Frontiers of Democracy*.

Post-War Agenda, released November 15, 1942.

A folder which fits with the pamphlet series and contains the *Post-War Agenda of the Board* and *Our Freedoms and Rights*.

After the War—Toward Security.

Digest of Security Report. (See above.)

This record would not be complete without reference to the publication, *Post-Defense Planning*, issued by the Senate Committee on Education and Labor, recording the hearings on S. 1617 in which the Board and its staff played a major role.

Other pamphlet materials issued during the year include:

Our Public Works Experience, released April 1, 1942, which is a digest of the report, Economic Effects of Public Works Expenditures.

In addition to this list of pamphlets, the Board issued a handbook entitled *The Protection of Culturol Resources Against the Hazards of War*, February 1942.

Technical Papers

A series of publications in "letter size" was begun at the end of the last fiscal year to bring basic planning data to the attention of technical and professional persons for their review and criticism. Since then the following technical papers have been issued:

No. 1. Supplement to the Patterns of Resource Use, 1940, by Gardiner C. Means, published June 25, 1941.

No. 2. Public Works and National Planning in Selected Countries, by Lewis L. Lorwin, published November 15, 1941.

No. 3. Gains in Oil and Gas Production Refining and Utilization Technology, by H. C. Miller and G. B. Shea of the Bureau of Mines, published November 15, 1941.

No. 4. Coal Production and the Utilization Technique, by A. C. Fieldner and W. E. Rice of the Bureau of Mines, published December 29, 1941.

No. 5. Interstate Water Compacts, by staff of Water Resources Committee, published June 1942.

No. 6. Area Analysis, a Method of Public Works Planning, a restatement of the procedure used in the demonstration experience of 1941, published September 24, 1942.

No. 7. International Development—Public Works and Other Problems, by Lewis L. Lorwin, published November 24, 1942.

No. 8. Tax Delinquency and Rural Land-Use Adjustment, the report of the Land Committee, which has been under way for 2 years, published September 24, 1942.

No. 9. Integration of Federal and Non-Federal Research as a War Problem, published October 20, 1942.

Circulars and Bulletins

In addition to these printed materials, the Board continues to issue, for general or confidential distribution, a series of mimeographed or offset bulletins and circulars:

Circular II—Status of State and Regional Planning Agencies.
Circular VIII—Fields of Current State Planning Board Activity.
Circular IX—Organization and Programs of Regional Planning Agencies.
Circular XI—Current Programs of State Planning Agencies.
Circular XII—Planning Laws—Regional, State and Local, issued December 15, 1941.
Bulletins for guidance of committees, field offices, consultants, etc., continue to appear as needed including Status of Construction Projects, as noted above.
Publications of the Board's field offices are reviewed in Section IV of this report.

Meetings, Conferences and Other Public Records

The Board has held 25 formal meetings since July 1, 1941. In the summer of 1941 the Board with the Director and Assistant Director Herring met with Governors and State planning groups in Colorado, Utah, Idaho, Washington, Oregon, and California. In May 1942 the Board, advisers, field officers, and staff met in Indianapolis with the National Conference on Planning. Members of the Board and staff also held a special meeting in Chicago on September 17 for discussion of the post-war problems of the Mid-West region with leading citizens of the area.

The Chairman held a meeting in Detroit, February 18, 1942, on community problems of the Willow Run bomber plant, and, during June 1942, visited Canada, Alaska, and the Pacific Northwest with Counselors Bessey and Rettie. In September he met with the Joint Canadian-American Economic Committee at the time when the North Pacific planning project was launched by that group. Dr. Merriam, the Vice Chairman, has met with numerous groups with particular reference to the work of the Board on post-war planning, including the Pittsburgh War Labor Conference, February 22; the National Conference on Planning, May 25, and attendance at the Harvard Urbanism Conference on March 5–6. Mr. Yantis, a member of the Board, has similarly met with planning organizations and other groups, particularly in the Pacific Northwest. He spoke at labor conferences in Philadelphia early in February and in Washington on June 19, and before the California Planning and Housing Conference in Los Angeles on September 25, 1942.

During its meetings, the Board has continued conferences, arranged with the help of Consultant Luther Gulick, on various post-war planning problems. These occasions have included:

July 2, 1941	Federal officials concerned with Post-Defense Planning.
Oct. 21	Post-War Planning in England.
Oct. 22	Children and Youth.
Nov. 6	Federal Officials—Post-Defense Planning Progress.
Dec. 3	Federal Officials—International Aspects.
Jan. 14, 1942	Nutrition Problems.
Feb. 6	Federal Officials—Security and Services.
Feb. 6	Relation to Office of Facts and Figures.
Feb. 24	Transportation.
Feb. 25	Post-War Opinion.
Mar. 18	Production Program.
May 1	Housebuilding Industry.
June 12	Labor's Role in Post-War Planning.
July 8	Relation with Office of War Information.
July 13	Federal Officials—Post-War Conversion of Industry.
Aug. 11	Post-War Planning for Agriculture.
Sept. 12	Science and Post-War Planning.
Oct. 6	Post-War Planning Recommendations.
Nov. 19	Freedom from Want of Food.

The Director, Dr. Gulick, and other staff members have conferred on post-war planning with various gatherings at Harvard, College of the City of New York, American Municipal Association, the Cooperative League, etc., and participated on various programs, including the American Forum of the Air, Columbia Broadcasting System, Health Forum, and Peoples Platform. Dr. Gulick, Mr. Millett, and Mr. Miller have maintained close contact with the post-war planning work of the National Planning Association.

The Assistant Directors have also been active in meetings of planning groups—with the International Labor Office, Public Works officials, National Reclamation Association, American Society of Civil Engineers and others.

Conferences of regional officers and Washington staff have been held in Philadelphia, Denver, and Indianapolis.

Financial Statement

The work of the Board has been financed through regular appropriations from the Congress in the independent offices bills and from defense appropriations and allotments. Table 1 shows funds available for the fiscal years 1939–43, inclusive.

These funds have been expended to carry on the administrative work of the Board, its divisions, and field offices for a series of projects or special studies.

Table 1.—*Funds Available, 1939–43*

	1939	1940	1941	1942	1943
APPROPRIATIONS:					
Salaries and expenses	710,288	742,349	693,257	659,828	534,422
Printing and binding [1]				34,743	40,000
National defense activities				397,724	200,000
ALLOTMENTS:					
Defense funds			197,523	132,155	242,845
PWA funds for—					
Federal Public Works program	25,000	12,130	16,173	6,562	135
Pacific Northwest land study	26,805	32,844	28,275	6,988	88
Pecos River joint inventory		17,843	19,790	13,932	128
WPA funds for inventory of public lands	13,307	35,980			
Total	775,400	841,146	955,018	1,251,932	1,017,618

[1] Included in salaries and expenses for 1939 and 1940.

A statement of expenses for the fiscal years 1935 to 1939 is contained in the progress report of the National Resources Committee under date of June 1939. For the fiscal years 1939 to 1943, inclusive, table 2 summarizes what was spent in previous years and what is estimated to be spent in the current fiscal year.

These figures are not wholly comparable from year to year because the objects or activities have changed in emphasis. For example, funds under the item "Industrial" were chiefly used for the preparation of the report on, *Transportation and National Policy*, in 1940–41, for the volume on Industrial Location in 1942, and currently on War and Post-War Industrial Conversion. Similarly, the item, Science and Security shows the major effort for the preparation of the report, *Security Work and Relief Policies*, beginning in the fiscal year 1940 and reaching its peak in 1941. The rapid drop in the expenditures under the heading "Water" from 1940 to 1941 is partly explained by the transfer of the charges for work of the drainage basin committees from that account to the field office account beginning with the fiscal year 1941. The special projects financed with PWA and WPA allotments are combined with the charges for the corresponding activities in this summary total.

To carry out the program of work which the Board has voted to undertake during this fiscal year (1943) budget allotments have been made:

1. *To maintain a central organization and field offices as centers of planning activity and information* for the President and for Federal, regional, State, local, and private planning work.

2. *To carry on studies of trends and stabilization of employment:*

(1) Quarterly reports on Economic Trends for the Nation and substantial parts thereof;

(2) Studies of Full Employment Stabilization, and

(3) Plans for Industrial Location and Conversion in the Field and in Washington.

3. *To emphasize public works programming:*

(1) Preparation of a 6-year Federal program of public works and maintenance of information on surveys and construction programs;

(2) Assistance to and collection of data from State and local governments on 6-year programs of public works;

(3) Studies of role of public works and the construction industry in stabilization of employment and procedures therefor.

4. *To continue and expand services to war agencies* as part of the war effort, recognizing that wartime and post-war planning is part of a continuous process. These services include:

(*a*) Working relations and loan of personnel to such agencies as the War Production Board, War Department, Housing Administration, Federal Works Agency, etc.;

(*b*) Participation in work of the Roster of Scientific and Specialized Personnel and manpower and demobilization problems;

(*c*) Field cooperation on "Area Studies" in war communities, etc. See also 37, Area Studies.

5. To develop policies and plans for "After the War" in collaboration with all concerned and with specific recommendations and proposals. "Ever-Current" recommendations are to be constantly refined and improved for use when needed or appropriate.

6. *To present a "National Resources Development—Report for 1943"*—under the outline approved by the President.

7. *To concentrate "Field" activities on "Area Plans"* combining work of various sections and functional groups as far as possible in the same areas. Areas for intensive plan preparation have been chosen because of special problems—conversion areas, defense areas, depressed areas, or, because of major developmental possibilities—urban, industrial, power, or other resources. It is hoped to secure the active interest and financial support of State and local planning groups,

TABLE 2.—*Summary of Actual and Estimated Administrative Expenses, Fiscal Years 1939–43*

Activity	1939	1940	1941	1942	1943 [1]	Organization
General accounts	$103,428	$127,217	$224,521	$232,291	$210,000	Board and Director's Office.
Post-war agenda				39,243	38,000	
Employment stabilization and production	97,388	73,306	46,820	78,036	85,000	Division "A."
Science, security, etc.	45,930	53,131	81,535	82,406	49,000	
Industrial	34,031	31,358	148,355	123,005	97,500	Division "B."
Land	23,798	42,397	24,077	27,101	10,000	
Water	63,488	62,862	35,585	49,486	25,000	Division "C."
Public works	50,655	56,875	59,906	64,939	87,000	
Regional and field offices	238,405	299,866	279,537	293,589	286,000	Field.
State and local planning	118,277	94,134	54,682	217,046	84,500	
Printing and binding [2]				44,799	45,000	Printing.
Total	775,400	841,146	955,018	1,251,932	1,017,422	

[1] Estimated.
[2] Distributed to items above for 1939, 1940, and 1941.

field representatives of Federal agencies, and private groups in these area studies.

Various degrees of detail might be included in these area plans, such as:

Perspectives, or bird's-eye views or map projections showing general geography and major projects—like the view of the Central Valley project issued by the Reclamation Bureau and accompanied by explanatory text and necessary qualifications as to their accuracy so as to give the lay reader a graphic idea of what is meant by full development of the resources of the Upper Colorado, the Columbia, etc.

General plans, combining all factors in a single program for a given area: The current example is the Arkansas Valley project. It is hoped to complete other such general plans in the near future, capitalizing on previous work on the Northern Lakes States cut-over area, the New England Regional Plan, Alaska, Puerto Rico, the Columbia Basin project, etc.

"*Intensive Area Plans*" for selected areas such as Puget Sound, Wasatch front, Denver metropolitan, the Texas coastal area, the Coosa Valley and Birmingham, the Detroit metropolitan area, and the Niagara frontier. In each case work is dependent on cooperative arrangements with State and local authorities and the list can be expanded where new opportunities or further funds are in sight.

It is proposed to concentrate field operations of various types:

1. *Trends reporting,* in collaboration with Federal Reserve banks and other sources.

2. *Public works programming,* assistance to State and local governments and compilation of data on programs previously developed for reports to Washington.

3. *Industrial location and conversion studies* for particular industries or groups of industries.

4. *Urban planning demonstrations.*

5. *Physical resources development plans.*

Each of these types will at the same time be continued outside the areas for spot studies or general plans, but only to complete work now under way, to take advantage of some special opportunity or collaboration from other agencies, or to provide material and information needed by the Washington office. In this category are the three Cooperative Water Investigation Areas of the Merrimack, Meramec, and Santa Barbara, Area Analysis Projects, and other Drainage Basin Stage 1 plans.

I—WARTIME PLANNING FOR RESOURCE USE

National resources to be mobilized for war and developed for peace include our manpower, our man-made resources, our natural wealth of land, water, and minerals, and our institutions or ways of doing things.

Human Resources

Specialized Personnel

In June 1940, at the instigation of its Science Committee, the Board brought together representatives of the scientific councils and professional organizations to take steps for the best use of the specialized and scientific personnel of the Nation. Utilizing the British experience, the National Roster of Scientific and Specialized Personnel was then established as a joint enterprise of the Board and the Civil Service Commission under the directorship of Dr. Leonard M. Carmichael and with Mr. James C. O'Brien as Executive Officer.

The Roster was developed rapidly through questionnaires circulated to professional societies and directly from the office established at the Civil Service Commission. Later the lists of doctors, previously developed by the American Medical Association, was consolidated in the Roster punch-card system in Washington. Over 500,000 names are now included on the Roster, and some 135,000 names have been certified to agencies needing the services of specialists for the war effort. During the autumn of 1941 procedures were agreed upon with the Selective Service System to avoid unnecessary or unwise disruption of the work of specialists through the operation of the draft. Through the activities of the Roster [1] an orderly procedure was established to mobilize the specialized skills of the Nation for war and to reduce the waste of such personnel through misuse or inappropriate assignment.

With the outbreak of war, it became increasingly apparent that these activities were not enough to assure an adequate supply or proper distribution of scientific and specialized personnel. At the request of the Board, Mr. Owen D. Young accepted the chairmanship of a special committee of the Roster on Wartime Requirements to report on the problem. A quick survey and review of the situation was made by an operating committee under the general direction of the committee, and a report was submitted on February 28, 1942, which presented the facts then available on the needs of the Army, Navy, Public Service, Industry and Education, and the available supply of professionally trained men to meet these needs. This report proved of great value to the War Manpower Commission on its establishment on April 18, 1942. The Roster was then transferred from the Civil Service Commission to the War Manpower Commission, with the Board continuing to supply consulting services and contacts with scientific councils and other professional groups.

Human Conservation

On another aspect of the manpower problem and the mobilization of human resources, the Board has completed preparations to issue *Human Conservation*, a report prepared by Lawrence Frank, formerly vice president of the Josiah Macy, Jr., Foundation, which dramatizes the wastes from accident, ill health, etc., which must be overcome or reduced for efficient conduct of the war and for the welfare of all the people after the war.

Security, Health, and Nutrition

After the completion of the major report, *Security, Work and Relief Policies*, the staff that had been engaged on that undertaking concentrated their activities on investigation of problems of health and nutrition, and in Part I of this report [2] proposals are included for guaranteeing access to health and security, with supporting statements.

Youth and Education

In the report of the Board for 1942 [3] a similar statement was included on "Youth and Education," and in Part I of this document that material has been expanded and developed into a series of proposals on "Equal Access to Education", prepared by Dr. Floyd W. Reeves with the assistance of Dr. Paul R. Mort and Dudley L. Harley.

Demobilization

Finally, as noted in Part I, the Board has brought together an informal Conference on Post-War Readjustment of Civilian and Military Personnel, which is already exploring the problems to be faced in the reabsorption of our manpower resources into civilian activities at the end of the war.

Man-made Resources

Industrial Plant

New war industries and the enormous expansion of plant in the defense and war programs have raised

[1] See special report on *The Work, Organization, and Procedures of The National Roster of Scientific and Specialized Personnel*, National Resources Planning Board, June 1942.

[2] Published separately, as House Document 128, Part 1—*Post War Plan and Program.*

[3] *National Resources Development—Report for 1942*, January 1942.

numerous questions as to their location. The President requested the Board to assemble materials which would aid in the wise location of these industries and develop criteria for the selection of specific sites.

The Board's staff has, therefore, played an important role in the mobilization and development of our industrial plant for the war. From the beginning of the defense program in 1940, memoranda and comment have been supplied to the National Defense Advisory Commission, the Army and Navy, the Supply Priorities and Allocation Board, and the War Production Board on plant locations and expansions. The materials and information of the staff working on the report, *Industrial Location and National Resources,* were used in providing this advisory service. In the regional offices of the Board and in cooperation with State planning agencies, companion studies were undertaken on the distinctive regional problems involved.

The Chief of the Board's Industrial Section, Dr. Glen E. McLaughlin, served as an observer and later as a member of the Plant Site Board and sat with the Facilities Clearance Committee of the Army-Navy Munitions Board daily for many months. The staff reviewed most of the proposals for the location, expansion or development of new industrial plants. On most of the 2,067 approved plant expansions (to October 1, 1942) involving over $14 billion, the staff made comments and recommendations to the appropriate authorities. Special memoranda on a whole industry or group of activities have been called for and provided. The field offices of the Board have collaborated in supplying information and comment on conditions of labor supply, transportation facilities, sites, etc., in different cities and areas. At frequent intervals the Board has compiled and submitted to the President and to officials directly concerned confidential progress reports in the form of maps and tables showing the location of new or expanded plants.

On September 29 the Plant Site Board of the War Production Board was abolished and its functions were transferred to the Facilities and Program Branch, in which there is a new Facility Clearance Board. The Branch is a part of the Office of the Vice Chairman of the War Production Board on program determination. The Facility Clearance Board as now constituted consists of two representatives from the Navy, two from the War Department, one from the Maritime Commission, and two from the War Production Board. The staff of the Industrial Section continues to assist the new Board in the review of proposals for the expansion of war production facilities.

War Production

The data and staff of the Board are being increasingly used by other parts of the War Production Board:

Assistant Director Thomas C. Blaisdell was assigned in January 1942 to serve as one of the three members of the Planning Committee of Mr. Nelson's office. He is giving part time to this work while continuing supervision of the staff of Division A. In this way the work of the Trends and Stabilization Section, Roster, and other parts of the Board's work with which Mr. Blaisdell has been engaged can be effectively used by the War Production Board. This assignment of Mr. Blaisdell's superseded a similar job he had been doing on approximately a half-time basis with the Clearance Committee of the Supply Priorities and Allocations Board.

Assistant Director Ralph J. Watkins has been similarly engaged in liaison work with the Supply Priorities and Allocations Board and the War Production Board as Economic Adviser to Mr. Sydney Hillman, and more recently as alternate for Mr. Blaisdell on the War Production Board's Planning Committee. For several weeks in the latter part of the fiscal year, Dr. Watkins was loaned on a half-time basis to the Combined Raw Materials Board. Various members of the Board's staff have been and are being called upon to assist in getting out special memoranda and materials drawing on the data and experience of the Board for this work.

Assistant Director Frank W. Herring has assisted Mr. Nelson's Planning Organization Office on facilities and construction programming of the War Production Board, and Dr. John Millett has been loaned for other studies.

Transportation

Coincident with the development and completion of the report, *Transportation and National Policy,* the Board's staff has advised with other transportation agencies in the Government, aided in the organization of the Defense Transportation Office and served on various committees.

Mr. Ernest W. Williams sits with the Interdepartmental Shipping Imports Advisory Committee and works with the Requirements Committee of the War Production Board on transportation problems. In that connection, he is in almost daily touch with the Transportation Equipment Branch, Civilian Supply, Board of Economic Warfare and Lend-Lease. He has also served as a member of six end-product committees under the Production Requirements Plan advising the Requirements Committee. His memoranda on the Alaska Railroad proposal, motive power and car equipment, and strategic points in the transportation industry have aided the agencies concerned with these matters. The Alaska office prepared, at the request of the district engineer, memoranda on economic factors involved in the location, construction, and operation of

the proposed Alaska railroad. It prepared information and testimony for the Maritime Commission at its hearings on the emergency surcharge on passenger and freight rates of steamship lines to Alaska.

Mr. Wilfred Owen is sewing part-time with the Highway Transportation Division, Services of Supply, of the War Department, and in that capacity has been responsible for a series of studies and memoranda on "The Rubber Shortage" (April 15, 1942) and "Automobile Transportation—Current Outlook" (June 1942). He has also worked with the Public Roads, Office of Defense Transportation, Price Administration, etc., on highway transportation problems.

Energy

For the Office of Civilian Supply of the War Production Board the staff of Division B under Dr. Watkins' direction has prepared an Interim Report on the mobilization of energy resources. The report, entitled "Energy Supply and Requirements for the War Program," was transmitted to the War Production Board on August 27, 1942. It dealt with the immediate problems which may arise in connection with the supply of fuels and electric power to war and nonwar users during the winter of 1942–43. The report contains sections on bituminous coal, anthracite, petroleum, natural gas, and electric power, together with a summary of recommendations relating to problems of the winter of 1942–43 and for the duration of the war. A more complete statement is now in preparation with emphasis on the longer-range problems of energy resource use during the war and for the transition period at the end of the war.

In addition Mr. Wilbert Fritz of the staff has worked with the Petroleum Administration and the Chemicals Division of WPB to see that the war needs for fuels and chemical products are met with proper regard for conservation of petroleum and natural gas.

Public Works and Construction

Confidential progress reports on the Status of War Construction have been compiled periodically since 1940 for the information of the President. Division C under Assistant Director Herring has developed the Federal 6-year program of public works and aided in the correlation of surveys, investigations, and proposed authorization and construction of projects through issuance of a Bulletin of Federal Construction Projects.

At the beginning of the current fiscal year the National Resources Planning Board established within the staff of Division C a new section called the Public Works Project Review Section. To this Section the following functions were assigned:

(1) To inquire into and set forth the *relations* of construction project proposals to existing developments and conditions and to desirable plans for the area or region involved;

(2) To facilitate the *coordination* of the projects proposed by one agency with the projects or plans of other public or private agencies dealing with the same area or the same or similar functions;

(3) To recommend the *relative order of desirability* of proposals within the same functional category, taking into account the needs and resources of the area concerned, the national values involved and the relation of benefits to cost for each proposal. In this connection the Section is guided by existing national policies applicable to the situation and where significant questions regarding policies are raised, they are brought to the attention of other appropriate sections or committees of the Board.

On October 9, 1942, the Board established the Public Works Project Review Committee, to support and guide the Project Review Section. In establishing this committee the Board had in mind the following considerations:

(1) A maximum amount of mature judgment and broad experience can be applied to the review of projects.

(2) Committee members representing Federal agencies can bring the technical staff resources of their departments to bear upon the project review problem, multiplying by many times the amount of technical attention possible through the Board staff alone.

(3) A great amount of program coordination is accomplished by the simple device of frequent meetings of agency representatives giving consideration to projects proposed by their agencies.

The committee merges the functions of the previous Evaluation Subcommittees of the Water and Land Committees. The members will bring to bear upon project review an expert knowledge on land use, inland waterway transportation, power development, water supply, soil and water conservation, forestation, erosion prevention, stream pollution control, irrigation, drainage, and flood control. It may appear desirable in the future to expand the Committee to include representatives from other agencies.

For a period of more than a year the Division has been cooperating with the Bureau of Labor Statistics on a WPA project in Philadelphia which was undertaken for the purpose of analyzing and tabulating into labor and material order patterns, by types of projects, the information obtained by the Bureau of Labor Statistics on federally financed construction. These patterns in their preliminary form first appeared in the Board's report, *Economic Effects of Federal Public Works Expenditures, 1933–38*. A preliminary report on the project, detailing the procedures and methods used and some of the more significant projects, has been completed.

Section III of this report presents a more detailed report on wartime programming of facilities and construction; progress in public works planning; and Federal, State, and local programs of public works.

Section IV describes the "trouble shooting" activities of the regional offices and consultants in aiding areas critically affected by the impact of war industries and

military establishments to plan for needed wartime facilities and adjustments and also for post-war readjustments; the intensive area planning projects for wartime and post-war development of regional resources carried out by the regional offices jointly with local, State, and Federal agencies; and special war planning projects undertaken by various regional offices.

Natural Resources

Land

During the last year and a half the Land Committee has held nine meetings, including special conferences in Boston, Dallas, Little Rock, and Indianapolis, in which Federal, State, and local officials participated. The committee and the section of the staff supporting it have concentrated their activities on land-use requirements for food and higher standards of nutrition during and after the war. As reported elsewhere in this statement, a major report was completed and issued on, *Public Works and Rural Land Use*, and two technical papers, *Area Analysis: A Method of Public Works Planning*, and *Tax Delinquency and Rural Land-Use Adjustment*, have been released during the last year. A Subcommittee on Evaluation of Public Works Projects has developed procedures for the review of proposals originating in various Federal agencies, and the subcommittee and its work have been merged in the Public Works Project Review Committee. A statement on rural land improvements is included in Part I of this document.[4]

Water

An important activity of the Water Resources Section and the Water Resources Committee has been the evaluation and review of public works proposals submitted through the procedures established under Executive Order No. 8455. The Evaluation Subcommittee has reviewed some 613 projects during the last 21 months, and pointed out relation of these proposals to plans of other agencies or proposals for other activities in the areas involved. As in the case of the Land Subcommittee on Evaluation, this work has now been transferred to the new Public Works Project Review Committee.

An important aspect of the preparation of plans for the use and control of water has been the coordination of projects in the field through 45 drainage-basin committees, with representation of Federal, State, and local interests and served by the regional offices and consultants of the National Resources Planning Board. Plans for drainage-basin developments have been materially advanced.

Two special undertakings of recent months deserve note in this connection. The Board's staff has suggested a procedure for the preparation of drainage-basin plans in a series of stages, and a number of Stage 1 plans have been prepared in recent months, as outlined in Section IV of this report.

A second advance in this field of planning has been made under a Subcommittee on Cooperative Investigations through three demonstration projects, in the Merrimack and Meramec and Santa Barbara areas. The Federal agencies concerned are pooling their survey and investigation staffs for a joint effort.

The report on the Arkansas Valley planning project which was prepared by the Board's region V office, is another example of the cooperative procedure in which the experience of the Water Resources Section and cooperation of Federal agencies represented on the Water Resources Committee was an important factor in the successful development of a unified report.

For post-war plans the Water Resources Section has contributed the statement in Part I of this document.[4]

Minerals

Representatives of the National Resources Planning Board, including the Director, Assistant Director Watkins, and various of the western regional officers participated in a series of hearings on the O'Mahoney bill for the mobilization of mineral resources for the war effort. These hearings, held in the spring and summer of 1941, are included in the *Hearings in Senate Res. 53, Part I—Mineral Resources.*

For the special investigation of the anthracite area, Assistant Director Watkins was appointed by the President a member of the Investigating Committee. The staff of the Board were called upon to assist in the preparation of the report of the Committee, which was issued April 21, 1942, as House Document No. 709.

Through the field office for Region No. 6, and in cooperation with the Minnesota Resources Commission, special materials were brought together on the Mesabi Range iron ore problems by the Industrial Section.

Institutional Resources

Economic Trends

Under the Federal Employment Stabilization Act of 1931 the Board has a special responsibility to report to the President on the trends of national income, employment, and consumption. Confidential quarterly reports are prepared in a section of Division A and an annual summary is contained in Section II, following. These reports record the rise in the national income, increase in the cost of living, national and regional employment figures, etc., drawn from a variety of Government and private sources and with the assistance of specialists in each of the field offices of the Board. Since the beginning of the defense program these

[4] See footnote 2, above.

[4] See footnote 2, above.

reports have necessarily dealt more and more with problems of war production and conversion of the economy to war needs. The reports have therefore been especially useful to such agencies as the War Production Board, Office of Price Administration, Board of Economic Warfare, and Federal Reserve Board.

For closer collaboration between the Federal Reserve banks and the National Resources Planning Board, Gov. R. M. Evans of the Federal Reserve Board and Adviser Beardsley Ruml of the NRPB have been designated by their respective agencies to develop cooperation and procedures for regional and economic analyses and research. At a meeting of the Governors of the Federal Reserve banks in Washington on October 5 a program for such research was launched.

Full Employment

A unit in Division A of the Board on full employment stabilization has developed materials on the 1918–19 experience in demobilization of the war economy and data on the probable activity of different segments of the economy at varying levels of national income. These materials are obviously important to the stabilization of the war economy and to the transition after the war. The unit has been under the direction of Dr. Oscar Altman assisted by Paul Samuelson of the Massachusetts Institute of Technology.

Cultural Resources

For the conservation of cultural resources the Board established a subcommittee by that name in 1941, under the chairmanship of Dr. Waldo G. Leland, with representation of the Library of Congress, The Archives, the National Museum, and the Smithsonian Institution. It has issued a pamphlet, *Preservation of Cultural Resources Against the Hazards of War*, and developed cooperating committees in most of the States.

Science and Research

The Science Committee of the Board has continued its advisory service on various aspects of research and follow-up of the committee's previous reports, *Research—A National Resource*, *Problems of a Changing Population*, and *Technological Trends*. It was at the suggestion of the Science Committee that the Board established the National Roster and a considerable part of the attention of the Science Committee has therefore been devoted to the development of that work and related problems of wartime education and training, and utilization of alien scientists.

Following up its work on research, the Committee has issued a technical paper prepared by Dr. Richard H. Heindel on, *The Integration of Federal and Non-Federal Research as a War Problem*, and explored possibilities of long-range programs of research in various bureaus and agencies of the Federal Government.

The membership of the Committee has changed during the period covered by this report by the addition of Dr. Leonard Carmichael, from the National Academy of Sciences, and Dr. George D. Stoddard, from the American Society of Learned Societies, who took the place of Dr. Charles E. Judd. Dr. Judd resigned as secretary of the Committee after serving since the organization of the group. An executive committee, under the leadership of Vice Chairman Waldo G. Leland, was established to handle interim matters between meetings, and Dr. Robert D. Leigh and Dr. Lawrence K. Frank have served successively as secretaries to the Committee.

Planning

The process of planning as a resource has been recognized as never before in the effort to mobilize all the resources of the Nation for total war. With the multiplication of agencies for prosecution of the war effort, new planning offices and committees have been established. Reference has been made above to the Planning Committee of the War Production Board, to the Plant Site Board, and Facilities Clearance Committees, etc. The older planning activities of the Department of Agriculture, the Department of the Interior, the Federal Security Agency, and the Public Works Agency have continued and grown.

A corresponding development of planning in Federal agencies for the post-war period is also noteworthy. In almost every department and agency some special group or unit is giving attention to the problems of "winning the peace." Progress of regional, State, and local planning is reviewed in Section IV, below.

In accordance with our democratic tradition, private as well as public, agencies have been taking part in the development of the planning function in the United States. Long before the idea of post-war planning was claiming newspaper headlines there were, along with official planning bodies, many private groups devoted to similar ideas and objectives. Some of these nongovernmental groups have been interested in the over-all problems of the Nation's progress—an interest similar in its broad scope to that of the National Resources Planning Board. The National Planning Association is a prominent example of an organization of this type. There has naturally been at all times a close and cooperative relationship between the Board and such groups.

Another type of agency has focussed its efforts on some one aspect of national planning. In this group are the various planning agencies concerned with planning in its narrower, restricted sense—the agencies at work in the field of physical planning for areas of various kinds. The American Society of Planning Officials, American Planning and Civic Association,

and American Institute of Planners bring together many of these groups—the city planners, State and regional planning agencies. From these groups also, the Board has always enlisted close cooperation, both on the national level, as in the joint sessions of the National Conference on Planning in Indianapolis in May 1942, and, through its Field Service Section and regional offices, also in joint projects in regional and area planning.

Another group of private agencies are those devoted to study, education, and action in a single field such as social security, education, scientific research, etc. Many, if not most, of the private national agencies in these and similar fields have been associated with the Board—through membership of officers or staff on Board committees and through services contracted for by the Board. The recent study of the post-war needs and goals of the public library made by the American Library Association is an example of such association as is the work of the Board's Science Committee, which is made up of representatives of the national scientific councils. As with the Board, the activities of many of these private agencies are now directed toward the post-war period, insofar as direct war work does not claim their energies.

In addition, there are, of course, a large group of new agencies which have come into being as a direct consequence of the war, and for the purpose of considering the conditions of peace. The Commission to Study the Organization of Peace, the Commission to Study the Bases of a Just and Durable Peace of the Federal Council of Churches of Christ in America and other religious groups, are examples of such newly constituted committees and commissions. Some of these groups are occupied exclusively with the international aspects of the post-war problem; most of them are concerned also with the domestic aspects of the situation. Older organizations in the field of foreign affairs, such as the Foreign Policy Association, are also emphasizing the interdependence of domestic and international problems.

Another group of organizations inevitably very alive to the importance of planning for the post-war period in the economics field includes business organizations of all kinds. Their activities range all the way from over-all technical research into our national requirements, and our ability to produce and distribute enough to satisfy them, to sponsorship of informal discussions of "how our town will solve its own post-war problems."

Although the number of private organizations which are conducting technical research on post-war problems is small, their work will provide essential background material on the basis of which plans can be formulated. The Twentieth Century Fund and the National Bureau of Economic Research, two well-established groups in the economic research field, are both engaged on research projects pertaining to economic problems in the post-war period. The National Planning Association, a nonpartisan membership group referred to earlier, makes it a policy to keep track of research being carried on in the planning field and to fill in important gaps. At the present time in the post-war field the association has studies under way in the following areas: Changing administrative relations of government, labor, and industry; capital adjustment procedures; post-war wage and price policies. The research program of the New School for Social Research is largely concerned with international affairs; but of particular importance to domestic post-war planning is an investigation into the subject of technological trends and mobility of labor, a housing study, and a study of post-war demand.

Engaged in research are a number of the colleges and universities which, in spite of their present unsettled condition, have projected post-war planning programs, frequently in fields of particular concern to the areas in which the institutions are located. Stanford University has outlined an ambitious program of this kind, and a similar project is under way in a group of institutions in the Pacific Northwest under the sponsorship of the Northwest Regional Council.

The Committee for Economic Development, a group recently organized under the sponsorship of the Department of Commerce and composed of the heads of a large number of large business concerns, is organizing a research committee with a sizable staff. They will "initiate studies into the principles of business policy and of public policy which will foster the full contribution by industry and commerce in the post-war period of the attainment of high and secure standards of living * * * through a maximum employment and high productivity in the domestic economy."

A significant approach to post-war planning can be found in the way in which individual business concerns are being urged to devote time and thought now to the solution of their own post-war problems. The Committee for Economic Development, in addition to its research program, has as one of its announced objectives "To stimulate planning on the part of business enterprises for their own future after the war and to develop material for the furtherance of such planning." This Committee has issued a *Manual for Industrial Corporations*, containing suggestions for individual business firms to follow in planning for the post-war period. An extensive field program is under way to persuade business concerns throughout the country of the importance of starting to plan immediately.

Along this same line the National Association of Manufacturers has formed a Committee on Post-War Problems. An outline intended for the use of individ-

ual manufacturers has already been published under the title, *Practical Program for Industry—Preparing Now for Post-War Problems.* The United States Chamber of Commerce is also interested in sponsoring post-war planning on the part of business firms, and has formed a Conference Committee on Urban Problems and Developments "to encourage community consideration of the outlook and opportunities for employment and investment in urban areas in post-war periods."

On the theory that information about the conditions business firms will face at the end of the war will facilitate the making of plans now, a number of groups have undertaken surveys of anticipated post-war conditions. The Chamber of Commerce, for example, is making a Nation-wide survey of demand for consumer goods after the war. The facts gathered will be translated into raw material needs, plant capacity, and labor requirements, and the results will be available to businesses for use in their own planning. Another part of the survey is concerned with the problems which individual firms will face in conversion to peacetime production and retraining of workers. The material gathered will be kept up-to-date by a quarterly check-up.

Another survey has been conducted by the Research Advisory Service, a clearing house for technical information maintained by a group of banks, which questioned 360 manufacturers on how they were planning to keep up sales volume after war markets cease to exist. A firm of industrial designers sent questionnaires to 2,000 companies to learn how far they had gone in post-war planning and published an analysis of the answers received. A number of other advertising and public relations firms have made similar surveys.

The appointment of committees to study some particular aspect of post-war planning has been the approach of several groups. The American Legion at its 1942 convention appropriated $25,000 for the use of its national employment committee to study post-war planning for full employment, with special reference to the employment of veterans. This committee has already held one meeting, attended by a representative of the Board, at which it issued a statement emphasizing the fact that the problem of finding jobs for veterans after the war is inextricably bound up with the whole national employment picture.

The appointment of a standing Post-War Problems Committee was decided upon at the Toronto convention of the American Federation of Labor. All resolutions on such subjects as demobilization and post-war unemployment will be referred to this committee.

The American Association for Adult Education Commission on Post-War Training and Adjustment has already issued a report dealing with recommendations for provision of training for demobilized servicemen and industrial workers.

Many organizations are carrying on programs of education and stimulation of public opinion with reference to post-war planning period. In some instances—in the case of membership groups, especially those with local organizations—this activity is directed to the agency's own membership; in other cases, the educational program is directed toward the general public. Preparation and circulation of study outlines and other material, suggestions for forums and programs on post-war problems is under way in a number of these agencies. The Progressive Education Association in the October issue of its monthly magazine, entitled *Education for War and Peace* outlines a broad study and action program through which the schools might play a major role in helping to solve community problems. Sections of the study outline included in the June 1942 issue of *The Independent Women*, published by the National Federation of Business and Professional Women, were devoted to "What Are We Fighting For?" "Post-War Employment", and "You in the Post-War World." The National Council of Jewish Women has published a group of study outlines dealing with post-war problems. The Council for Social Action of the Congregational Christian Churches and the Commission to Study the Organization of Peace deal with domestic as well as international questions in their study materials.

The National Policy Committee has carried over its established technique of gathering together groups of especially well-qualified persons to discuss particular problems and following this with the publication of a report. In the post-war planning field there have been reports on *Changes in Government Structure Required for War and Peace*, and *Post-War Problems and Policies.* The Public Affairs Committee, an educational group, has also entered the field with its, *After the War?.* In this same category, although on a somewhat more ambitious scale, is the series of six books by Stuart Chase which the Twentieth Century Fund is publishing. These are popularly written volumes on the general theme "When the War Ends."

The Twentieth Century Fund has issued a pamphlet, *Post-War Planning* which lists a large number of agencies, public and private, engaged in planning now for after the war.

It would be difficult to overemphasize the importance of the work of the private agencies. Their efforts will play a major part in determining the informed "grass roots" public opinion from which all planning—local, regional, national, and even international—must gather its strength and upon which the acceptance and successful execution of any plan depends.

II. TRENDS OF PRODUCTION, EMPLOYMENT, PRICES, AND CONSUMPTION IN 1942

Introduction

We have been at war for over a year. Our economy has been transformed from one based on a large element of free choice—free choice of workers to work where they can; free choice of manufacturers to produce what they will; and free choice of consumers to buy what they desire—to an economy where free choice is restricted. Freely we have given our national effort, direction and purpose, and have instituted controls in order to achieve that purpose. Freedom of individual whim which in any way diverts energies or materials essential to war uses is intolerable and incompatible with the most efficient organization for the maximum war program.

We must review the economic trends of the past year in the light of our success in producing maximum war potential. The year 1942 was reserved in our grand strategy for swinging into full production. The year 1941 had been devoted to preparing the way by beginning the large-scale construction and conversion of plants and machines for producing war goods, and by directing the efforts of management and workers toward war production; 1942 was devoted to the continuation of this process and the acceleration of the actual production of finished war goods.

Since modern war requires the total energy of the Nation in arms, the extent of our war effort must be measured by the expenditure of energy rather than money; by the conversion of labor rather than facilities; by the investment of effort rather than capital. How well we directed our brains, management, and labor-power to the war effort in 1942 depended on the plans that were made, the efficiency with which those plans were effectuated, and the cooperation and enthusiasm of the participants in the productive process.

The Plans

On January 5, 1942, in submitting to Congress the 1943 budget, President Roosevelt stated:

> We cannot outfight our enemies unless, at the same time, we outproduce our enemies. It is not enough to turn out just a few more planes, a few more tanks, a few more guns, a few more ships, than can be turned out by our enemies. We must outproduce them overwhelmingly, so that there can be no question of our ability to provide a crushing superiority of equipment in any theater of the world war.

The budget message indicated a consciousness of the necessity for far-reaching and revolutionary planning in transferring our economy from full peacetime to full wartime operations. Fiscal policy was recognized as one tool in achieving this transformation, and the plans for the use of this device were set forth in the budget. The President stated:

> Last year fiscal policy was used to shift the economy into high gear. Today it is an instrument for transforming our peace economy into a war economy. This transformation must be completed with minimum friction and maximum speed. The fiscal measures which I outline in this message are essential elements in the Nation's war program.

Fiscal measures as planned in the Budget were supplemented by measures for manpower control, materials control, and rationing.

War expenditures were forecast in the 1943 budget at 55 billion dollars for the fiscal year ending June 1943. Because of speeding up of contracts and subsequent increases in cost, actual expenditures in fiscal 1943 will approximate 76 billion dollars.

The Effectuation

In presenting the estimates of the cost of the war for the fiscal year the President stated:

> The agencies responsible for the administration of this vast program must make certain that every dollar is speedily converted into a maximum of war effort.

In 1942 the urgent necessities were twofold: (1) To raise the level of our national production to its full potential; and (2) to convert our national production from peace to war operations.

Stimulated by the profits from the record level of consumer demand and the large inventory accumulation on the part of distributive enterprises, production of peacetime goods continued at record highs in the early part of the year. Superimposing war production on consumer goods production facilitated the transition from an economy characterized by unemployment to an economy approaching full potential. In 1942 the economy operated near capacity after more than a decade of unemployment. This indicated that our stagnation had not been chronic and that full employment was not an impossible consummation.

But full economic potential is not full war potential. Having approached full use of our resources, we were still faced with a task of converting manpower and industrial facilities to war. This task was made more difficult by the boom in the nonwar industries. Requirements for manpower, materials, and managerial skills with which to produce our war equipment competed with requirements of these same factors to main-

tain our high level of civilian production. Moreover, both labor and management showed a reluctance to forsake their profitable and secure employment in civilian production.

This reluctance was fortified by a lack of experience in war production, both in nonwar industries to be converted and in war industries to be expanded from small-scale operations to mass production. Tools, machinery, and military equipment were required which had never before been produced in this country. Plants had to expand their production many thousand times over and to revolutionize their industrial techniques. The flow of materials which had previously been available in great abundance was restricted by enemy action—through the conquest of areas of supply or through the molesting of supply routes. Throughout the American economy, attitudes and policies which were bred in years of unemployment, excess capacity, and low demand were forced to change overnight to attitudes and policies suited to full employment, full utilization of facilities, and unlimited markets.

In the light of the task confronting them, the American people have made remarkable achievements in 1942. Aircraft production, which is still far from its maximum potential, is already, in December 1942, at a rate three times as great as in December a year ago. At the same time we are producing better planes and have reached a point where we are sacrificing quantity production to quality of output. In other fields of war production the record has been equally heartening, notably in merchant shipping and in some ordnance programs. There are, however, spheres of war production where we have fallen far short of our goals, and in all sectors we have failed to produce as much as we hoped we could. We cannot explain all our failures, since it is difficult in the midst of a tornado to formulate a theory of aerodynamics. Mr. Donald Nelson, as Chairman of the War Production Board, has referred at times to "lack of balance in the war program"—construction of facilities for the production of final products in excess of facilities for the production of raw materials; piling up of inventories of raw materials in some plants while others suffer material shortages; continuation of civilian construction; and production of civilian goods in excess of minimum needs. Some lack of balance is inevitable in the early stages of a program of such magnitude as our war program in 1942. However, when the tooling-up of the economy is complete, and the economy is converted to war production, flow of war goods and services will be more regular and in greater volume.

The Intangibles

The amount of war production depends on the amount of war employment, the continuous utilization of plants and materials, and the productivity of labor. The productivity of labor in war industries is affected by the efficiency with which labor is used and directed and by the spirit with which labor works. In many phases of industrial activity management has responded to suggestions from within the factory which have accelerated war production. Changes of major importance have resulted from the way in which management has approached these new problems. This spirit has been remarkable. Even in areas where war workers must submit to intolerable living conditions due to overcrowding and lack of community facilities, they have set themselves to the task of war production without serious interruptions. Strikes have been few and delays in war production in specific plants have resulted primarily from lack of materials. Thus, during 1942 the time lost by strikes was less than one-tenth of 1 percent of the time worked. Throughout organized labor the pressure has been for greater production and more drastic reorganization of the industrial structure to meet war production requirements.

Labor-management committees have been set up in many war plants and in many cases have resulted in improved production through the encouragement of recommendations from the workers. Additional participation of the war labor force has been achieved through technical posters designed to acquaint each worker with the exact purpose in the war effort of the gadget which he is producing.

The large number of workers subscribing to War Savings bonds under voluntary pay-roll deduction plans bears further testimony to the high morale in war plants. By September 1942, 17 million workers in 145,000 firms and 2 million Federal, State, and local employees were participating. These workers were having 7.6 percent of their pay deducted. In the second and third quarters of 1942, deductions from the pay roll of workers participating in the pay-roll savings plans were 31 percent greater than the total sales of $25 bonds in that period.

Summary of Economic Trends in 1942

In 1941 the United States began girding its economy for the war to come. While some new plants for the production of aircraft, tanks, guns, and all war equipment were constructed throughout the country for orders from our own Government, still others produced in volume on British orders. The plants which were built to supply domestic orders were financed almost entirely with Federal funds and operated almost entirely by private industry. The important thing in 1941 was to create the potential which would be realized when the test came. In undertaking this task there was much hit or miss contracting for war goods, and centralized planning of production was noticeably

lacking. But large capacity was created in all fields of final war production.

Since December 7, 1941, the chips have been down and the magnitude and efficiency of our war economy has assumed paramount importance. In 1942 we have expanded the programs initiated in 1941. We come now, at the end of our first year of war, to survey our accomplishments, to recognize our shortcomings, and to plan for the further demands on our productive capacity.

The war has dominated 1942. All economic trends in 1942 must be considered as reflections of the war plans and programs. The amount of civilian consumption is important because it represents diversion of goods from war use; the standard of living is important from the point of view of worker efficiency; the level and distribution of employment are important in relation to the utilization of our resources for war; the movement of prices and the trend toward inflation are important from the point of view of the distribution among the citizens of the real burden of the war.

In 1942 the American economy broke many records. The national income was the highest in history, 21 percent higher than 1941, 38 percent higher than 1929. The real national income was 7 percent higher than 1941 and 40 percent higher than 1929. Taxes in calendar 1942 were greater than they had ever been, and Government expenditures were almost three times as great as in fiscal 1919, the previous high year. Average weekly earnings in manufacturing industries by August 1942 were greater than ever before, 27 percent above the average for the year 1941 and 50 percent above 1929. Employment in manufacturing industry reached 16.5 million in December which was an all-time high, 20 percent above 1941 and 65 percent above 1929.

The distribution of the end product of our economy clearly reflected the impact of the war. The production of war goods and services rose steadily from 13 percent of the gross national expenditures in the fourth quarter of 1941 to 43 percent in the fourth quarter of 1942. The consumption of goods and services by civilians continued to rise through the first three quarters, but in the fourth quarter registered a decline for the first time since 1939. This decline should continue in 1943, with consumers' outlay falling from about half of the gross national expenditures in the fourth quarter of 1942 to about a third in the fourth quarter a year hence.

Attracted by high wage rates as well as the patriotic desire to contribute directly to war production, workers left jobs of every description to work in our war plants, arsenals, navy yards, and in the Federal service. Women, high school students, clerks, traveling salesmen, and farmers took up war work. Many establishments, primarily in retail trade, had been forced to curtail their operations for lack of personnel. The flexibility of the American labor force under the strain of war has been astounding.

What have all these broken records meant in terms of the actual production of war goods?

In 1942 we produced 49,000 airplanes, and by the end of the year we were producing more planes each month than Germany, Italy, and Japan combined. In 1942 we produced 32,000 tanks and self-propelled artillery, 17,000 antiaircraft larger than 20 mm., and 8.2 million tons of merchant shipping. In the first three quarters of 1942 we shipped to our Allies $3 billion in military, industrial, and agricultural goods.

These production results are cheering from the point of view of the many years since 1929 when our economy staggered along far below its potential. They indicate that during the years of the depression when millions of Americans were unable to find work and poverty permeated our economy, our productive capacity increased immensely and the technical efficiency of our industrial plants advanced to stages that were entirely unsuspected. The low level of industrial activity had blinded many of us to the increase in our potential. The amount of war production is great when judged in comparison with that sick and stagnant economy. The amount of war production, however, is disappointing in the light of the rapid strides that were made in the American industrial structure during the years before the war.

In 1941 the construction of war plants and the diversion of our national product to war production was at the expense of the slack in the economy. The national income rose to the greatest levels ever achieved without serious dislocation of labor and materials. The objectives in 1941 were simply to produce the most of everything possible. Comprehensive planning was not effectuated then because the requirements were low. We produced "guns and butter." We produced many guns, but at the same time, more "butter" than ever before in our history.

In 1942 we have come to realize that lack of effective planning in 1941 has denied us necessary steel; has denied us the stock of rubber and aluminum and the capacity for transporting materials and equipment that are required to fulfill our program. In 1942 we have been scraping the bottom; the slack is gone. Expansion in war industries has been in part at the expense of contraction elsewhere, whereas expansion before was mainly at the expense of unemployment.

In the sections that follow we will review the economic trends of 1942 from three points of view: (1) How great was our total production and how was it distributed; (2) To what extent were our skills and resources converted to the war effort; and (3) What is the financial impact to-date of the war program?

These questions can be answered in part from the analysis of the national product, the trends in the size of the labor force, and the behavior of prices and the standard of living.

Size and Composition of the National Products in 1942

In 1942 we produced $154 billion worth of goods and services. This was 29 percent greater than our production of $119 billion in 1941 and 55 percent greater than our production of $99 billion in 1929.

In terms of dollars of constant purchasing power, using 1939 prices as a basis, the real gross national production of goods and services in 1942 was $126 billion. This was 14 percent greater than the 1941 level of $111 billion and 58 percent greater than the 1929 level of $80 billion.

The value of gross national product produced each month increased without interruption throughout the year. By the fourth quarter of 1942 it was at an annual rate of $169 billion. Next year we expect a continued rise to the total in the magnitude of $181 billion for the year and to the annual rate of $184 billion in the fourth quarter. But during 1943 the real gross national product will level off and will increase only 6 percent over 1942. Measured in 1939 dollars, it will reach about $134 billion.

The national income in 1942 was $115 billion, 21 percent greater than in 1941 and 38 percent greater than in 1929. The national income, which is smaller than the gross national product by an amount approximately equal to accounting depreciation and business taxes, has failed in recent years to increase as fast as the gross national product because an ever-increasing share of gross sales is diverted by businesses to the payment of taxes and the allowances for depreciation.[1]

The gross national income (or gross national expenditures) is spent for goods and services for private consumption, private capital formation, and government activity.

Consumers' Outlay

In 1942 consumers spent $82 billion for goods and services. This was $6 billion more than they had spent in 1941. However, the physical volume of consumer goods and services purchased declined $4 billion from 1941. Of the total expenditures of $82 billion, $10 billion was represented by payments due to higher prices. Consumers' outlay in terms of prices of the previous year was therefore only $72 billion.

While the total volume of goods and services declined in 1942, there was a decline in the volume of goods sold and an increase in the volume of services sold. The greatest curtailment in consumer outlay was in durable goods where only $5.7 billion were sold in 1942 as opposed to $10.5 billion in 1941. The great decline in the sales of durable goods came in the first half of the year when sales of automobiles and other durables were stopped. Nondurable goods remained at approximately the same level in 1942 although there was a sharp decline in the last quarter. Consumers' outlay for services, valued in constant prices, registered a continuing increase from quarter to quarter and amounted to $23.4 billion in 1942, $1.8 billion greater than they had been in 1941.[2] (See Fig. 1.)

The chief reason for the decline in consumption expenditures in the case of consumer durable goods was the cessation of production of those goods which used materials necessary to the war effort. Civilian automobile production was stopped in February; vacuum cleaners in April; laundry equipment, oil burners, and coal stokers in May; sewing machines, lawn mowers, and metal furniture in June; bed springs and mattresses in August; and cooking appliances in December 1942. The freezing of sales of automobiles in February cut off from consumers' outlay a channel which had absorbed about 35 percent of the total outlay for durable goods in 1941. The other stop-orders were significant from the point of view of allocating strategic raw materials, but their effect on total consumers' outlay was mitigated by the large inventories which had been accumulated in 1941.

As the inventories of finished goods become depleted, the physical volume of commodities bought by consumers will fall more rapidly. On the basis of plans established in 1942, it is estimated that by the fourth quarter of 1943 real consumers' commodity outlay in 1941 prices will have fallen to an annual rate of $25 to $30 billion, an amount approximately equal to consumers' commodity outlay in 1933.

Whereas the total level of real consumption by civilians will decline to depression lows, the per capita consumption will not fall so much since the expansion of the armed forces has transferred much consumption to public expenditures. In 1941 consumers' outlay (in 1939 dollars) was $540 per civilian. In 1942 this had

[1] The national income excludes taxes and depreciation because these elements are deducted from gross sales by businesses as "costs of production."

During the war the concept of "gross national product" has been substituted for the concept of "national income produced" for purposes of analysis. This substitution reflects a shift of emphasis in wartime from the concept of net income as the end product of economic activity to an emphasis on the total output of goods and services. In calculating our national potential for war purposes we are interested in the total production of goods and services; we care little whether financial provision has been made for the replacement of plant, or the payment of business taxes.

The measure of war potential in terms of net national income is less helpful since capacity utilization prevents the maintenance of plant in wartime and to some extent we must "live on our fat." Economic war strategy dictates decisions of plant replacement and deterioration. Since the maintenance of plant is possible only from an accounting point of view, the goods and services produced and sold in order to offset the depreciation of capital plant are no less part of our current war potential than the goods and services produced for profit and payments to the factors of production.

[2] These estimates are from the Office of Price Administration and the National Resources Planning Board. Although they do not check precisely with the Department of Commerce data presented elsewhere in this section, it is felt that they represent fairly accurately the magnitudes involved.

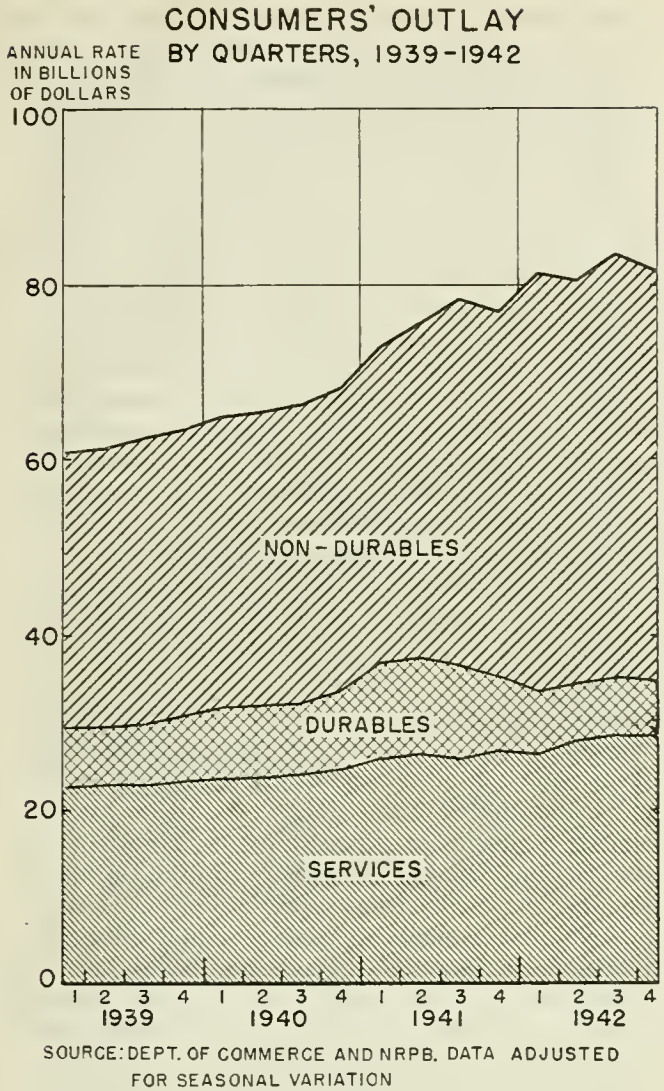


FIGURE 1

fallen to $522 per civilian. This compares with real outlays of $477 per civilian in 1929 and $349 per civilian in 1932.

Private Capital Formation

Private gross capital formation in 1942 was only $10 billion as compared with $19 billion in 1941. The greatest decline was in private construction since most construction activity was undertaken on public account. Construction costs rose throughout the year and absorbed a large share of the total outlays. Equipment expenditures also declined in 1942 as did the rate of accumulation of business inventories. Inventories increased throughout the first half of the year and registered their first quarterly decline in 3 years in the third quarter of 1942. However, retail inventories were drawn down earlier and manufacturers' inventories have continued to expand with the expansion of manufacturing activity. The net export of goods and services also declined in 1942 from $0.9 billion to $0.4 billion.

The striking decline in all segments of private investment both in current dollars and in the real volumes is due to the increasing restrictions on private activities and the increasing utilization of Federal funds for purposes of plant expansion, inventory accumulation, and exports and imports. An obvious result of the war is the transferring from private account to public account of most of the components of gross capital formation. Housing is now war housing, plants are war plants, exports are lend-lease, and inventories are either stock piles or war goods in process.

Government Expenditures

In 1942, $62 billion or 40 percent of the gross national expenditure of $154 billion were expended by governments: $50 billion were war expenditures and $12 billion were Federal, State, and local nonwar expenditures. War expenditures alone were 32 percent of gross national expenditures in 1942, and by the fourth quarter of the year they were made at an annual rate of $73 billion, or 44 percent of total gross national expenditures running at a rate of $169 billion a year.

War expenditures of the Federal Government and its corporations do not include all the war activities undertaken by Federal agencies. Many Federal agencies which are not formally recognized as war agencies contribute, in fact, much of their energies to the prosecution of the war. When, as often is the case, some Federal service or other receives formal recognition as a war function, expenditures from that service are simply transferred in the statistics from "nonwar expenditures" to "war expenditures" without any real change in the work done. Since the beginning of the defense program in July 1940, the definition of war activities (or defense activities) of the Federal Government has been constantly broadened. In the early days of the defense program some of the functions of the War Department were classified as "nonwar activities" and, consequently, "war expenditures" in those days were understated. As many of the functions of economic control which were developed within the Government framework before the war are necessarily adapted to the war environment, the distinction between "war expenditures" and "nonwar expenditures" of the Federal Government becomes increasingly obscure.

Expenditures by the Federal Government are payments for products finally completed and delivered; payments in advance of delivery to manufacturers for goods in process; renegotiated payments on contracts previously completed; payments to contractors in advance of operations; loans to businesses for capital expansion on war contracts; wages and salaries of

Government employees for services as rendered; pay and maintenance of the armed forces; and payments to foreign countries for deliveries of strategic and critical materials under the stock pile program. Including as it does all these heterogeneous components, the outlay by the Federal Government does not measure in any period the value of the goods and services finally produced and delivered on behalf of the war effort. Some of the payments for goods and services are many months in advance of delivery. Other payments are for goods and services delivered previously and other payments are for goods and services delivered but unusable because complementary products are not yet available.

Even if the volume of Government expenditures did measure accurately the volume of goods and services completed and delivered to the Federal Government in any period, they would fail to indicate the physical volume of these deliveries. The increase in prices throughout the economy and the increase in the factor costs of production have raised the prices paid by the Government significantly over the last year. As the prices paid by the Government have increased, the rate of increase of deliveries of final product has necessarily been slower than the rate of increase of expenditures.

As yet no price index of prices paid by the Government has been constructed. Until such an index is made and carried forward currently and until Government expenditures are calculated on a current delivery basis, expenditures by the Government will be indicative of money operations alone and will fail to measure accurately the war effort.

Change in Composition of Gross National Expenditures

The gross national expenditure in 1942 amounted to $154 billion. (See Fig. 2.) About $50 billion was spent by the Government for war goods and services; about $12 billion was spent for nonwar Government activities; about $10 billion was spent for private gross capital formation; and about $82 billion was spent by consumers for current consumption. This level of consumer expenditures was greater than in any previous years. The rise in consumer expenditures, however, was more than offset by the rise in prices and the volume of goods and services consumed declined from 1941 to 1942. Per capita real consumption in 1941 was the greatest on record, and in 1942 it was the second greatest on record.

That we have been able to undertake a war program amounting to one-third of our total production without a serious decline in living standards and consumption outlays is in part a reflection of our great productive capacity. It has been possible in many fields to maintain civilian production at peak levels in the face of constantly expanding war activity.

The ability to maintain the standard of living also reflects the inequality in the distribution of consumption expenditures among consuming units during the depression years prior to the war. In 1942 the unemployed and low-income groups through their increases in income were able to expand their consumption of goods and services in the face of the war program. This increase in the aggregate consumption of the low-income recipients made for more equality in the distribution of consumption. In 1943 we estimate that per capita real consumption among civilians, in 1939 dollars, will fall to $447 a year. This per capita consumption is slightly more than the per capita consumption in 1938. It is greater than the per capita consumption in any year during the period 1930 through 1935.

The point of maximum civilian sacrifice is not determinable from an examination of the data of the depression period. The per capita consumption in 1932 was unequally distributed, confined largely to the employed alone, with the unemployed suffering severe curtailment of their consumption. In a period of full employment, with adequate purchasing power and rationing, the greater equality in the distribution of consumption among consuming units would make possible a reduction of average real consumption to levels even below the 1932 low point. A further means of reducing real nonwar expenditures is through restrictions in the volume of private capital formation. Assuming that under these conditions of low consumption and failure to replace capital we could still produce our maximum potential of good and services, real war expenditures (in 1941 dollars) of over $100 billion in calendar 1943 might then be possible. If there should be a 20 percent price increase in 1943 over 1941, war expenditures could total $120 billion. This level is probably near our maximum both in terms of our productive capacity and in terms of our capacity to suffer curtailments in the standard of living. It is about 2.6 times the war expenditures in 1942 and 42 percent greater than the highest forecast for 1943. It is doubtful whether production of war material can be maintained at these levels for any sustained period.

Wartime Conversion of Skills and Resources [3]

The war has necessitated a complete redirection of the energy of the American people. Workers who were producing civilian goods and services have been diverted to war employment or to the armed forces. Unused sources of labor—among both the voluntarily and the involuntarily unemployed—have been tapped. In 1941, in spite of the large recruitment of war workers

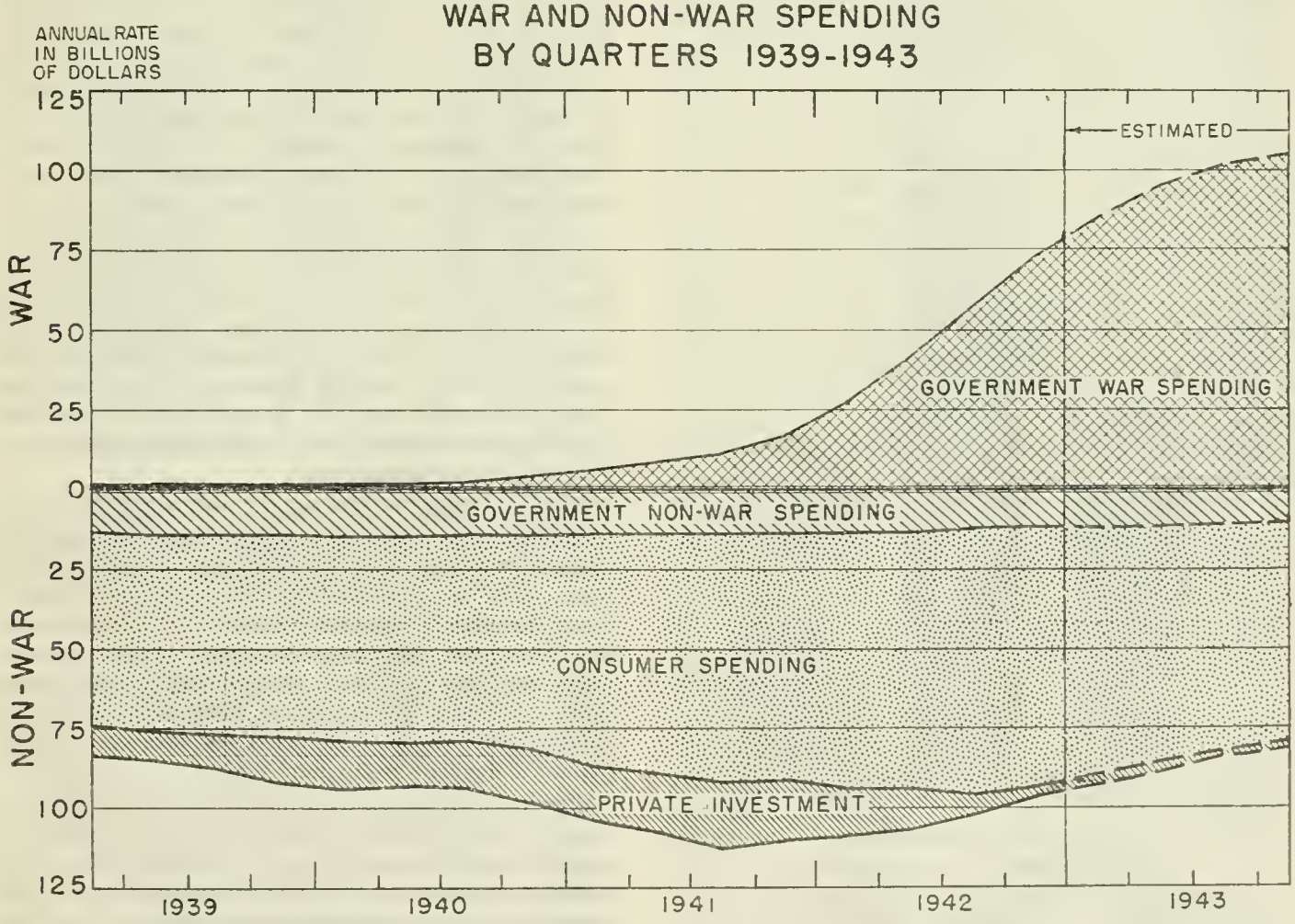
[3] War employment, as recorded in this section, refers to the estimated number of workers required to produce war goods of a given dollar magnitude. A measure of the actual number of workers in war plants in specific war industries was released by the War Manpower Commission on January 25, 1943, subsequent to the preparation of this section.

and the growth of the armed forces, nonwar employment also expanded.

In 1942 much of the slack in the economy was gone, although there was still a large number of unemployed. The entire expansion in war industries could be fulfilled however only by a concurrent decline in nonwar employment and by an extraordinary rise in the labor force through the entrance of women, young workers, and old workers in excess of their normal accretion. War employment, which had increased over 5 million in 1941, increased over 11 million in 1942. The armed forces, which had increased over 1 million in 1941, increased over 3 million in 1942.

By December 1942, about 23 million people were engaged in war work as civilians or soldiers, an increase of 14 million over December 1941. At the same time only about 21 million workers were nonwar employed, a decline of 8 million from 1941. By December 1943 approximately 29 million people will be employed in war work or in the armed forces, and slightly less than 20 million will be employed in nonwar work. An additional 13 million will be agricultural, domestic, and self-employed workers.

In 1941 the greatest source of new manpower was the unemployed. (See Fig. 3.) This provided 3.3 million persons, or more than half the 6.4 million workers necessary for war work and the armed forces. In 1942 total requirements for the armed forces and war employment were estimated at 14 million workers. Of this 2.3 million were secured through the employment of the unemployed, and the rest were newcomers to the labor force or workers transferred from nonwar work. By 1943, when the requirements will be 6.0 million, the chief source of manpower to keep our war effort going will have to be expansion of the total labor force rather than reduction in unemployment or redistribution of workers. This expansion will come primarily through the hiring of women. It is estimated that 2.8 million women will have to enter the labor force in 1943. Only 0.7 million men will enter the labor force; 0.5 million



SOURCE: DEPT. OF COMMERCE, WAR PRODUCTION BOARD AND NRPB. DATA ADJUSTED FOR SEASONAL VARIATION

FIGURE 2.

workers will be absorbed from the ranks of the unemployed; and 2.0 million workers from nonwar industries.

The basis on which our war program has proceeded has thus changed since December 1940. In 1941 our war effort was possible in the face of competing expansion throughout the civilian economy by means of employing the unemployed workers and utilizing our excess industrial capacity. In 1942 expansion of our war effort was possible only by contraction in nonwar industry. In 1943 further expansion of our war effort will be possible only through an expansion of the total labor force by the accretion of women and by the increasing of hours.

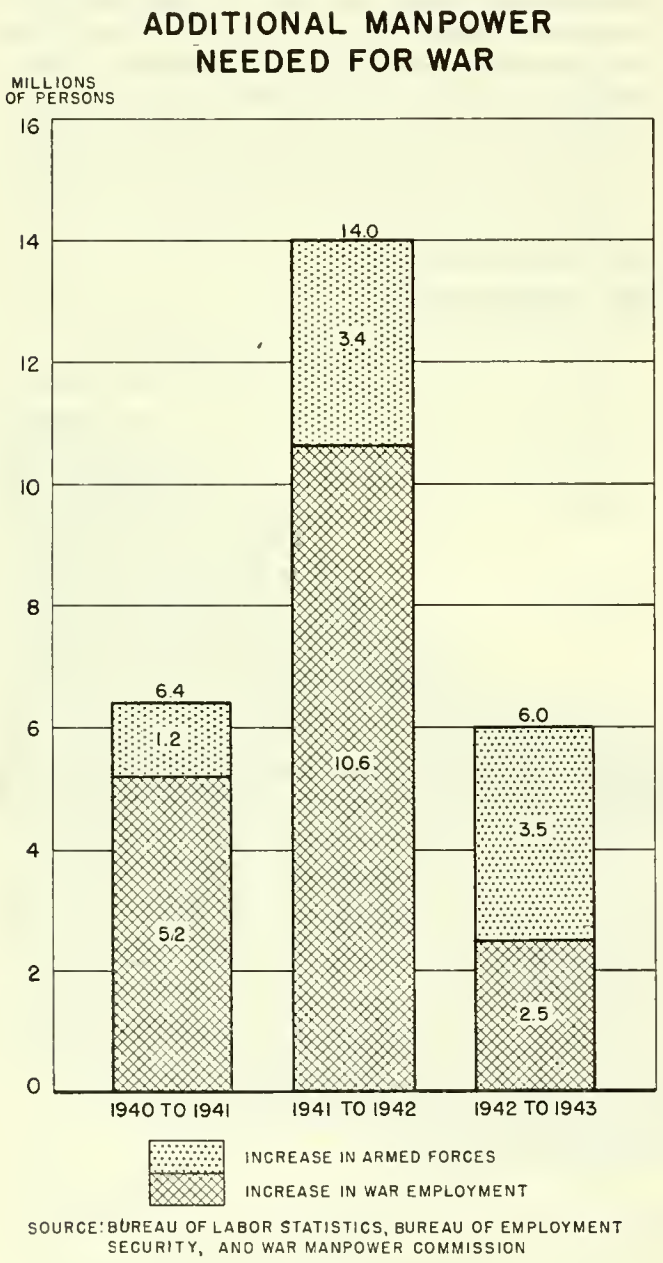


FIGURE 3

Absorption of the Unemployed

In 1941 and 1942, 5.6 million unemployed workers were absorbed by the expanding economy. The total body of unemployed workers by December 1942 had fallen to 1.5 million and this source of manpower was practically exhausted. In 1943 it is estimated that another half million unemployed workers will be absorbed by industry and that the level of one million unemployed in December 1943 will be the irreducible minimum below which it is impossible to draw.

The existence of 7 million unemployed workers in December 1940 was at the same time beneficial and detrimental to our war program. The benefits derive from the fact that the unemployed provided the slack by which our national effort could easily encompass war work as well as peace work—"guns" as well as "butter."

At the beginning of the war program in 1941, the reservoir of unemployed provided the most convenient source of manpower. No redirection of industrial operations or conversion of nonwar industrial facilities was necessary then since sufficient workers were available to undertake the expansion that was needed. Much of the decline in nonwar employment which occurred in 1941 was not effectuated by curtailing nonwar operations, but represents primarily the use of the term "war employment" to describe activities which previously had been called "nonwar employment."

Unemployed workers were a convenient source of manpower also in that they were already trained in work habits and had no personal adjustments to make in order to accept employment. An unemployed worker could be hired in a war plant where his skill could be directly utilized, whereas newcomers to the labor force would have first to be trained or would be hired in nonwar employment necessitating the transfer of others to war employment.

The availability of the unemployed was detrimental to the war effort because it obscured the necessity for immediate diversion of skilled managerial labor to war work. The army of the unemployed did not include many industrial managers. Because of the continuation of nonwar operations throughout 1941, management was prevented from transferring to war operations. Although the total war labor force increased, a large part of the skill necessary for its direction remained devoted to civilian uses.

A more rapid increase in war production might have been obtained between 1940 and 1942 through the transfer of skilled workers to war industries by conversion of existing plants. Actually, expansion in the early years of the war program depended mainly on new plants and absorption of the unemployed.

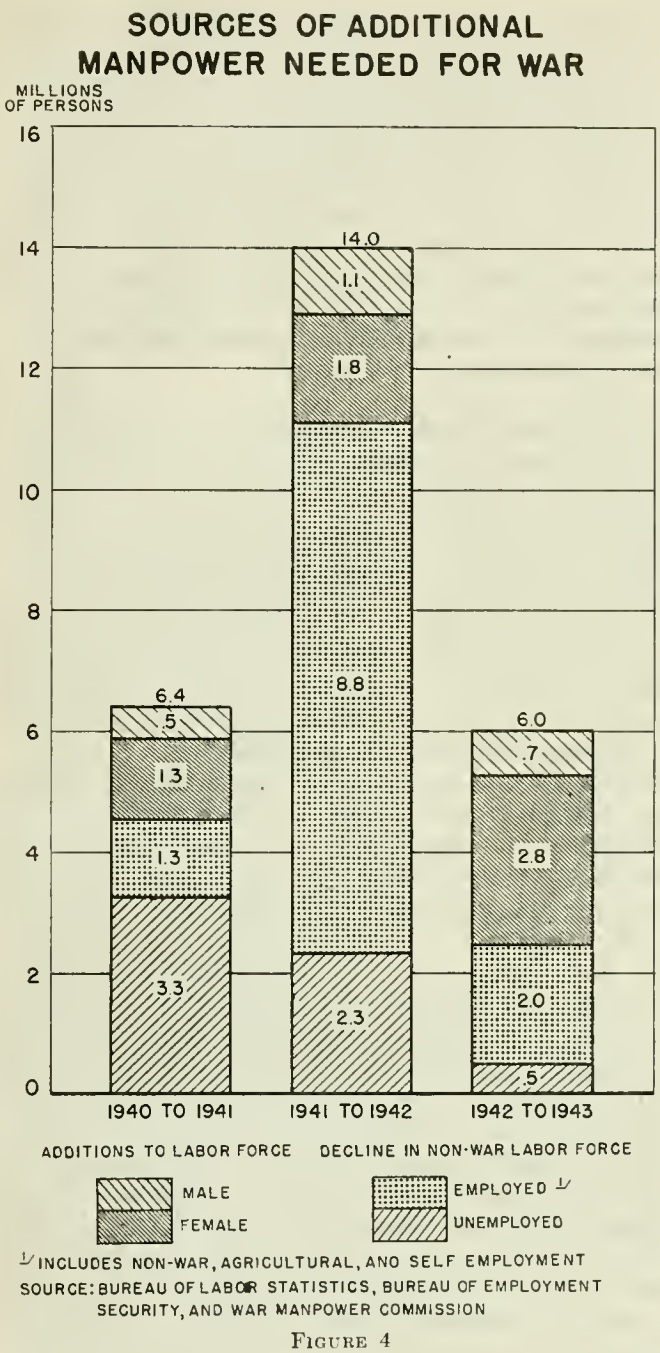


FIGURE 4

Conversion

In order to direct skilled labor and skilled management and the plant and equipment with which they worked to war production from similar civilian production, many companies formerly manufacturing durable consumer goods, such as automobiles, refrigerators, vacuum cleaners, etc., were converted to war production. This was begun in the first quarter of the year in the automobile industry, and in the second quarter of the year in the case of many other consumer durable industries. By May 1942, the automobile companies were producing no automobiles for civilian use.

Conversion in the automobile industry has been a lengthy process. Peak production of some commodities produced in converted plants may not be reached for some time yet.

The maximum dislocation attending conversion of the automobile industry occurred in December, January, and February, when civilian production was curtailed, and in March when civilian production was finally stopped. In these months employment in the automobile industry declined from 522,000 in November to 358,000 in February.[4] The unemployment arising from curtailment of civilian production was mitigated by the absorption of automobile workers in other industries and the retention of workers by the automobile companies in excess of their current requirements during the conversion period in order to maintain the worker force intact in the face of the anticipated tight labor market.

Contraction in Nonwar Employment

In 1942 expansion of war activities was accomplished primarily through diversion of workers from peacetime to wartime uses. This diversion of workers was effectuated in two ways: Some workers became occupied with war work when their plants were converted; and other workers transferred from peacetime work to war work. These two techniques for absorbing nonwar workers into the war effort accomplished the same ends as far as aggregate manpower is concerned. Under conversion, not only plants, but labor and management are converted to war work. In labor transfers, however, the workers left their skilled supervision behind and consequent unbalance ensued between managerial accretions and worker accretions to the war labor force.

The transfer of labor power from nonwar plants to war plants was accomplished in 1942 mainly by the migration of skilled labor and by curtailments in operations of nonwar industries. In view of the magnitude of the operation it is not surprising that in many instances these transfers were not efficiently rationalized, as in the case of the transportation of thousands of workers to the west coast shipyards from the New York region, in spite of labor shortages on the east coast. In other cases, recruiting was hampered by prejudice against workers because of race, religion, or sex.

One of the major problems has been the retention of war workers rather than their recruitment. In many areas living conditions for war workers have become so depressed because of overcrowding and profiteering that many workers have quit their jobs and taken work elsewhere, often for lower money wages.

The transfer of labor from nonwar employment to war employment could not be undertaken without some reappraisal of defense jobs on the part of the workers.

[4] Bureau of Labor Statistics, *Employment in the Automobile Industry*, 1941.

Workers came to recognize that there was some security and stability in war employment. In 1941 defense jobs were regarded as temporary bonanzas to be avoided if one sought security. In 1942 with the recognition of the fact that the war would not be ended overnight, workers lost any reluctance to take war jobs.

It was necessary for employers to accept the importance of training new workers. In 1941 employers in war plants restricted their hiring to a large extent to trained workers and were reluctant to undertake a large-scale training program on their own. The training program of the United States Office of Education, the National Youth Administration, the War Production Board, and other agencies served to acquaint unskilled workers with superficial machine techniques but was not adequate either in extent or scope to provide an efficient labor force for our manpower requirements. In 1942, companies producing war products had to accept many unskilled workers and to train them within the plants and on the jobs. Upwards of 4 million workers have thus been trained within industry. Many of these were white-collar workers—lawyers, school teachers, salesmen, as well as young newcomers to the labor market and women performing industrial jobs for the first time. The general acceptance of training within industry has been a major step in attaining our goals of war employment in 1942.

Extraordinary Expansion of the Labor Force

Under conditions of full employment and maximum productivity, production can be increased in two ways; by inducing newcomers to enter the labor force and by increasing the workweek of those already employed.

It is "normal" in the United States for about 700,000 additional workers to enter the labor force each year.[5] These newcomers include about 400,000 men and about 300,000 women. Such "normal" additions to the labor force would be insufficient in themselves to provide the manpower necessary to attain a high level of war production. In 1941 there were 1.1 million accretions to the labor force above "normal"; in 1942 there were 2.2 million extraordinary accretions; and in 1943 it is estimated that there will be 2.8 million newcomers to the labor force in excess of the "normal" increment. Motivated by good wages as well as patriotic appeals, women have provided the greatest source of new recruits to the labor force. Whereas in December 1941 26 percent of the labor force were women, in December 1942 29 percent of the labor force were women, and in December 1943 it is estimated that 34 percent of the total civilian labor force will be women. In December 1942, 37 percent of employees in nonwar establishments and 23 percent of the employees in war establishments were women. By December 1943 it is estimated that 45 percent of the employees in nonwar establishments and 30 percent of the employees in war establishments will be women. Over the 3-year period from December 1940 to December 1943, 900,000 women should normally have entered the labor force. However, it is estimated that 5.9 million women will actually have entered the labor force during these years. (See Fig. 4.)

Women entrants to the labor force have gravitated more to war work than to nonwar work in spite of the fact that women workers have become relatively more numerous in nonwar work than before. In 1942, 1.8 million women entered the labor force and 0.9 million women left the ranks of the unemployed and self-employed. The 2.7 million increase in the number of women employed was distributed by a rise of 2.6 million in the number of women working in war plants and an increase of 0.1 million women in the agricultural labor force. The number of women employed in nonwar plants remained stationary.

Whether or not we succeed in attracting new workers into the labor force depends to a large extent on the conditions of employment. In 1943 we will be dependent on housewives, students, older men, and even the partially disabled for extraordinary accretions to the labor force. Such individuals will be motivated by both financial and nonfinancial considerations. The impulse to enter the labor force will be primarily patriotic. Hindrances will arise from poor living and working conditions such as long hours of work, inadequate shopping and nursery facilities, and poor community services. Much labor power could be tapped by an expansion of part-time work for housewives so that they would have half their day for their home duties. Part-time employment would provide a means for training people not only in the technicalities of industrial labor, but also in the habits of holding down a job. A transition from part-time to full-time employment could be gradual and would provide a trained reserve for potential expansion of the labor force. Part-time work for high school students during the school year and extended summer vacations could similarly provide potential accretions to the labor force. Summer employment of students could provide a source of agricultural labor, and thereby set agricultural workers free for the armed forces or for industrial employment.

Production can be increased under conditions of maximum productivity and full employment by lengthening the workweek, as well as by increasing the labor force. However, there is a maximum work-

[5] Mr. Donald Davenport, of the Bureau of Labor Statistics, presented this estimate before the Tolan Committee in February, 1942. (*Hearings*, p. 10282.) The average annual increase during the decade ending 1940 was about 500,000. Because of the changing age composition of the population, it is assumed that there is an increasing rate of increase in the labor force.

week beyond which total production declines. British experience indicates that the output per worker declines in some industries if the hours per week exceed 48. Lengthening the workweek hinders the expansion of the labor force through promoting absenteeism and turn-over unemployment. Furthermore, new workers would be inhibited from entering employment for the first time where hours of work are too long. Our experience so far has been that many people in war plants and shipyards have been forced to stay home simply because they were unused to the strain and because their affairs were neglected while they were on the job.

It is imperative over the war period that we maintain in reserve a part of our national energy in case of heightened emergency. To maintain this reserve of energy involves training the greatest number of people for industrial employment and employing the greatest number consistent with full utilization of our plants. By increasing hours of those now employed and failing to entice newcomers into the labor market we will lose flexibility in the labor force. Should there be necessity for a large temporary increase in production at some future point, those then employed would be unable to increase their workweek and we would have to proceed to train the reservoir of untapped labor. Should we train this reservoir now, a further emergency would find us able to increase the workweek of everyone and this would provide us with a flexible reserve of labor power.

Financial Impact of the War Program

The problems of fiscal policy during wartime are twofold: (1) To maintain the integrity of the currency, i. e., to prevent inflation; and (2) to prevent the gross maldistribution of personal incomes. The failure to achieve these objectives can seriously interfere with the war effort. It can stimulate business as usual in supplying civilian goods instead of munitions of war or it can interfere with the equitable distribution of a limited supply of civilian goods. These minimum supplies will provide only for minimum standards of healthy living. Thus, unfair distribution means a weakened war effort and lowered morale.

The magnitude of the expenditures of the Federal Government, which were at an annual rate of $73 billion in the fourth quarter of 1942, dominate the American economy. The Government procures whatever goods and services it requires by buying them in the open market or by conscripting them. The Government procures the money necessary for these purchases by taxation or by borrowing from financial institutions and private individuals. In many of these operations the Government is at once the customer, the competitor, the partner, and the protector of the business or citizen with whom it is dealing. It is the customer in the accepted buyer-seller relationship. It is the competitor in that in almost every sphere private firms and individuals are prevented from freely purchasing goods and services because of the appetite of the war program. It is the partner in that capital expansion, inventory accumulation, and working funds are provided for war work by the Government. It is the protector in that all of its activities now are devoted to the national security.

The money transactions involved in running a war are tools for these allocations of products and services. If civilian goods, which constitute an ever-declining total, are allocated in accordance with the financial power of individuals to purchase them, rising purchasing power will cause rising prices, and the wealthy will get the goods. Goods become scarce when effective demand presses on supply; and when purchasing power rises to the extent it has in the last 2 years, goods become scarce, whether or not there has been a decline in the physical volume of production. This is particularly true because a large part of the population has for the first time in many years the purchasing power to realize demands which they were forced to curtail during the depression. The danger to the war program in this situation is twofold:

First, the rise of purchasing power might impede the conversion of our productive efforts to the manufacture of war goods by making it profitable to remain in civilian production.

Second, the pressure of purchasing power might increase the level of prices to a point where the standard of living of the lower-income groups will be depressed below standards of health and morale.

This is the problem of inflation—which is, at the same time, the basic war problem of channelizing the national effort. Providing the basic civilian requirements at home is as essential for the war program as providing military equipment for the front.

In wartime the Government must not only secure the goods it needs for carrying on the war. It must at the same time protect the citizens from inequities in the distribution of what is left over. All the financial techniques by which the Government discharges these functions are closely interrelated and are one aspect of the general problem of economic policy and economic mobilization. Price control, rationing, taxation, borrowing, allocation, income control, etc., are all cogs in the same machine and are all means of "paying for the war." Whether or not that machine runs well depends on whether the various parts are appropriately geared one to the other.

A general increase in incomes has been an inevitable accompaniment in attaining the high level of production necessary to win the war. The labor force was expanded and workers transferred to war jobs by virtue of

the rise in wage rates which occurred in 1942. The great increase in activity generated by the war program was accompanied by increased profits, dividends, and rents, as well as increased wages and salaries.

This general rise in incomes has meant a great increase in the standard of living, but income in 1941 and the first part of 1942 was distributed with some of the same inequality which characterized the 1935–36 distribution of income. However, the numbers of families with inadequate monetary income declined markedly. Thus it seems as though about one-quarter (11.3 million out of 42.7 million) of the "consumer units" had incomes of under $1,000 in 1941–42, whereas in 1935–36 as many as a half (18.4 million out of 39.5 million) of the families received less than $1,000.[6]

Rising incomes mean rising purchasing power which, if turned to the purchase of the shrunken supply of goods and services, brings rising prices. The major financial problem of 1942 has been how to permit the rise of incomes necessary for achieving full production without permitting the inflation attending the consequent rise in purchasing power. The amount of "inflation" that took place in 1942 should be measured not only by the rise of prices but also by the decline in the quality of merchandise and a deterioration of services to the consumers. Inflation results from the spending of money rather than from the receiving of incomes. The inflation resulting from the war has occurred because consumers have chosen to spend more money than was warranted by the supply of goods and services. Assuming that rising incomes are necessary to full production and should therefore be permitted, the prime cause of inflation has been the amount of income which has been spent on consumer goods, and the counteracting force has been the amount of income which has been saved by consumers.

During 1942 individuals saved the price structure by withholding $24 billion. This was 89 percent more than they had saved in 1929.

Savings

In 1942, income payments to individuals amounted to $112 billion. Direct tax payments reduced this by $6 billion, leaving disposable income of individuals, of $106 billion. This was the amount of current purchasing power which, given no saving, individuals could have spent out of income for the current supply of goods and services. The volume of consumer goods and services actually bought by individuals amounted to $73 billion in 1941 prices. Had consumers spent the total of their disposable incomes of $106 billion for these goods, prices would have risen 45 percent over 1941. In fact, consumers spent only $82 billion for the goods and services at hand, and prices rose 12 percent. This rise in prices absorbed $9 billion of the incomes of consumers, half again as much as direct personal taxes. (See Fig. 5.)

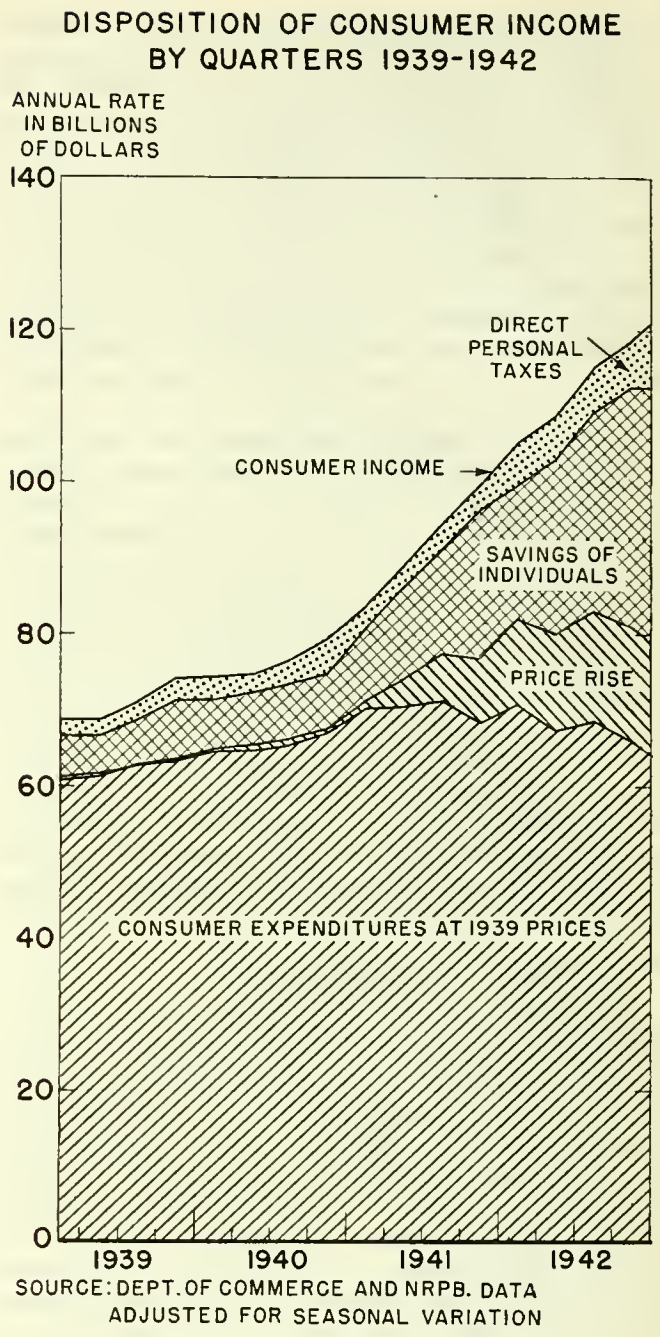


FIGURE 5

Studies of consumption and saving of families in 1941 and the first quarter of 1942 indicate that the proportion of income saved increased in the first period of 1942 over 1941. This decline in the propensity to consume occurred on the average in the income brackets over $1,500.[7] This tendency was generated not only

[6] From Studies made by the Consumer Income and Demand Section, Research Division, Office of Price Administration, published in *Sales Tax Data*, compiled by the staff of the Joint Committee on Internal Revenue Taxation.

[7] From studies made by the Bureau of Labor Statistics and the Bureau of Home Economics presented in the *Monthly Labor Review*, September and October 1942.

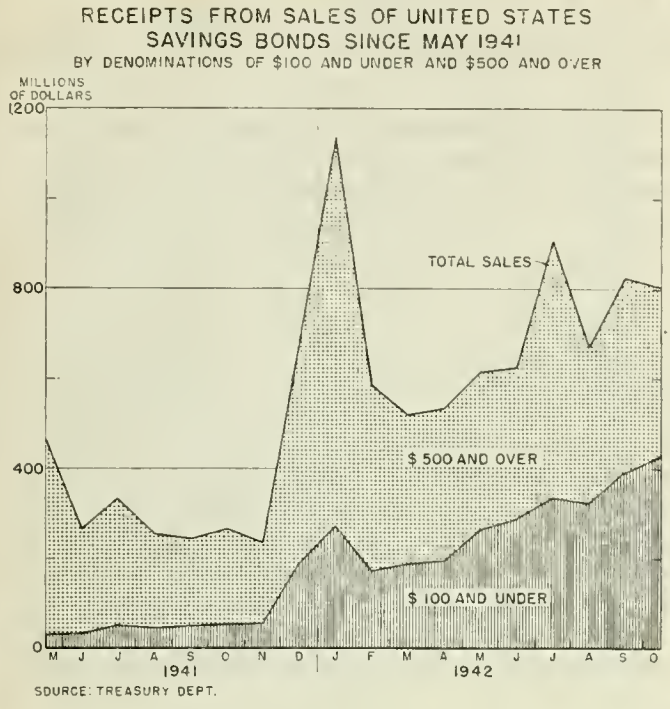

RECEIPTS FROM SALES OF UNITED STATES SAVINGS BONDS SINCE MAY 1941
BY DENOMINATIONS OF $100 AND UNDER AND $500 AND OVER
MILLIONS OF DOLLARS
1200
800
400
0
TOTAL SALES
$ 500 AND OVER
$ 100 AND UNDER
M J J A S O N D J F M A M J J A S O
1941
1942
SOURCE: TREASURY DEPT.

FIGURE 6

by shortages of goods but also by the failure of consumption habits to adapt themselves to increases in income. It is more difficult for a family to increase its expenditure for contractual items such as rent immediately upon the receipt of additional income. There is a mechanical period of adjustment. Furthermore, there is the fact that families earning more than they ever earned before are prevented by longer working hours from making the purchases which they can afford.

A small amount of this record total of individuals' savings was accomplished through utilization of established saving institutions, but most of it was in the form of purchases of Federal securities and holdings of extraordinary deposits and cash. The Securities and Exchange Commission estimates that in the first three-quarters of 1942, individuals saved $19.8 billion in liquid form. Of this, $3.5 billion was in the form of insurance; $2.1 billion was in the form of debt liquidation; and $0.2 billion was in the form of non-Federal securities. Of the remaining $14.0 billion, $6.6 billion was in the form of currency and deposits and $7.4 billion was in the form of Federal securities.

It is apparent from these data that the effect of the war on consumer spending habits has been less inflationary than we had feared. With the unavailability of certain commodities consumers are not seeking new avenues for expenditure, but are becoming accustomed to holding more money in the bank, more cash in their pockets, and fewer debts on their ledgers. The vast stocks of inventories of consumer goods which were available in 1942 also mitigated the impact of war curtailments on civilian consumption. In 1943, however, these inventories will be largely drawn down and the danger of inflation will be increased.

The sales of War bonds have risen quarter by quarter since May 1942. Many of these sales have absorbed accumulated savings rather than current purchasing power, and a significant share of what has been spent for bonds would have been saved anyway. However, the steady rise in the sales of the lower denomination bonds reflects the broadening of the base among bond purchasers and consequently the extension of the counter-inflationary aspects of bond sales. (See Fig 6.)

Thus inflationary developments have not dominated the economy during the year. The distribution of income has been somewhat improved as a result of full employment and the existence of large inventories of consumer goods.

The coming year will be dominated by much stronger inflationary tendencies and the diminishing supplies and production of consumer goods will force heavier reliance on devices such as rationing if minimum supplies of goods are to be distributed equitably. Savings will have to be stimulated and tax programs be used more vigorously if the currency is to be protected and goods are to be fairly divided.

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III. PUBLIC WORKS PLANNING

All construction went to war in 1942. Military and naval training stations, operating bases, munitions factories, emergency housing, and similar undertakings, all with a direct war objective, dominated the construction field, and yielded a volume of activity far beyond that of any year before in our history. No longer was there preoccupation with unemployment as a determinant of the amount and character of construction to be undertaken; rather the problems of the day became those of labor and materials shortages, of fitting the Nation's construction program to the amounts of steel, copper, lumber, and other materials that could be spared from the program of war implement manufacture. In other words, the largest construction program we have ever had has been under way in a period of shortage rather than one of surplus.

Naturally our construction planning activities have been reshaped by these conditions. We have had to develop methods suitable to the demands of war, a task that has not been without its difficulties. That we have not been completely successful is not a matter for surprise; it is a matter for honest and careful appraisal and earnest resolution for further improvement.

Normal peacetime planning for the building up of the physical resources of the Nation has had to be reoriented toward outlining the task that will lie before us when an end to international conflict permits us to resume our role as nation builders. Within this new framework our public works planning efforts have not lagged. We can now see that the job we shall have, to make our country the land we want it to be, will be a big one. We know that care and thought put into that planning now will be beyond price when the time comes to resume our peaceful pursuits.

It is this story of the impact of war on public works planning which is the subject of the following section.

WARTIME PROGRAMMING OF FACILITIES AND CONSTRUCTION

It is the purpose of this section to review and analyze the problems that have been encountered and the steps that have been taken since 1940 toward achieving a coordinated wartime program of facilities and construction. For this purpose, the development of the programming policy has been viewed as passing through five phases: (1) The planning stage—that of getting the program under way; (2) the initial construction stage during which the need clearly appeared, for the first time, for those additional or auxiliary facilities—such as housing, community facilities, and access roads—that had to be constructed if a new industrial plant or military base were to operate after it was completed; (3) deferring construction, first on a small scale by refusals of priorities for individual projects, then on a grander scale by limiting construction activity to specified types of projects; (4) the management phase, during which attempts have been—and still are being—made to program and schedule all construction operations in light of the resources available, and (5) the final or "tapering off" phase in the immediate future, when construction activity will gradually decline because the Nation will then be "tooled up" to produce the implements of war.

There is no clear line of demarcation between each of these stages of policy development; rather, they overlap each other both in time and in sequence.

Planning Phase

The fall of France in June 1940 marked the opening of the planning phase of wartime construction. This catastrophic change in the course of the war drove home, as nothing had before, that immediate defense preparations were imperative. There followed in swift order the completion of the organization of the National Defense Advisory Commission, increased appropriations for the procurement of munitions, and the enactment of the Selective Service Act. The planning problem was that of getting factories built that should have already been in operation, and of providing training facilities to absorb the new citizen army then being drafted.

The swift shock of events caught the war planners somewhat unprepared. The situation as it affected the planning and design of some military installations is best exemplified in the words of General Marshall, speaking of it later in the spring of 1941: [1]

> Frankly, we had not anticipated that the American people would ever be sufficiently aroused to authorize in time of peace such a tremendous program for the national defense, nor had we anticipated the complete collapse of the French Government in early June, along with the deadly hazard to the British of a transfer of French naval power to Germany and Italy. Furthermore, it was necessary for us to study the campaigns, the occurrences in France and Belgium, in order to benefit to the full by

[1] *Hearings before the Committee on Appropriations, House of Representatives*, 77th Congress, 1st sess., on the Fourth Supplemental National Defense Appropriation Bill for 1941; pp. 4, 12, 13.

the lessons indicated. The last required several months to assemble the facts from our attachés and from other sources. We took every means possible to find out what had occurred and get to the heart of the matter. This brought about decisions in the late summer and early fall for modifications of organizations, for different allotments of weapons, and so forth. Practically each of these decisions in some way affected requirements of a cantonment built for the purpose not only of sheltering troops but to facilitate their instruction.

The results and effects of these numerous changes—all made to keep us abreast of the times—did not percolate throughout our organization in time to affect, as they should have, the basic plans as to distribution of buildings, types, and numbers. I do not think it would have been possible at the speed at which we were compelled to work in order to get started as early in the fall as possible, once the money had been appropriated, to have secured a sufficient understanding on the part of all the detailed planning agencies involved in order to avoid the effects on the construction program, particularly of utilities. It was a case where everybody had to be somewhat reoriented simultaneously.

* * * we had to enter into the contracts without the opportunity to make the customary detailed engineering surveys well in advance. We had no funds for this purpose nor did we have the time to make such surveys * * *.

But the initial program of military camp construction *did* get under way in spite of all the difficulties. However, its cost was more than had been anticipated, and difficulties were encountered because of the lack of adequate engineering surveys and plans that led, in turn, to maddening and unavoidable construction delays. Once the need for advance planning of military construction had been demonstrated, however, the Congress appropriated the sum of $15,000,000 in the spring of 1941 for advance engineering plans and surveys for additional bases and camps.[2] The wisdom of this step was clear before the year was out when the United States entry into the war required a gigantic expansion in our armed forces and in the facilities for training them.

Another illustration of the planning problem was that of the expansion of war industrial facilities. Leaving aside for the moment the many arguments that occurred between the "new construction" and the "conversion" schools of thought, some new plants *had* to be built, and before a spade of earth could be turned in their construction, they *had* to be planned and located. Apart from the sheer construction design problems were the more perplexing ones of properly locating the plants themselves. There were the immediate military requirements of speed of construction and strategic considerations for location; there were also the operating requirements covering the availability of labor, raw materials, power, and transportation.

Since there was no over-all national industrial plan to guide the location of these new plant sites, some system was necessary to avoid (1) an overcrowding of the more industrialized centers already becoming congested with war contracts and (2) noncongested localities that were not equipped with the requisite resources, labor force, or experience in manufacturing operations. To aid in resolving this difficulty, the National Defense Advisory Commission itself at first acted as a board of review for proposed war plant locations. In March 1941, after the organization of the Office of Production Management, a Plant Site Committee was established within it to work with representatives of the national defense agencies in selecting the locations for war industrial plants and facilities. Later in May 1941 the Committee was superseded by a Plant Site Board also established within the Office of Production Management.[3]

As described in a previous section of this part, the National Resources Planning Board assisted the Plant Site Board and its predecessor agencies in solving plant location problems starting as early as the fall of 1940.[4]

The dispersion of war facilities and construction planning responsibilities among several departments in the Government and among several agencies in each department caused some confusion and duplication of effort in the early stages of the rearmament program.

As a first step in correcting this situation, the Congress in November 1941 enacted legislation transferring the construction activities of the Quartermaster Corps of the Army to the Corps of Engineers.[5] The transfer brought together for the first time all major construction operations of the Army—military and civil—into one administrative organization. Later, at the end of February 1942, the reorganization of the entire Army [6] into three major components, the Army Ground Forces, the Army Air Forces, and the Services of Supply (the latter consisting of the Ordnance Department, Signal Corps, Quartermaster Corps, Medical Department, Chemical Warfare Service, and Corps of Engineers), resulted in the effective separation of the operation and supply functions of the Army, and the closer coordination of Army construction and planning operations with other supply activities. This was the final necessary step in streamlining the Army facilities and construction planning procedure.

An internal reorganization in the Navy at the same time vested in the Bureau of Yards and Docks control over all contracts for Navy facilities and construction. This, too, was a logical step in eliminating some of the confusion that had previously existed.

Thus, while the problem of coordinating the planning of the war industrial facilities and base and camp construction was fairly well on its way to being solved,

[2] Fourth Supplemental National Defense Act of 1941, Public No. 13, 77th Cong., 1st sess.

[3] Regulation No. 6, Office of Production Management, May 6, 1941.

[4] A more detailed report of the Plant Site Board's operations and the activities of the National Resources Planning Board in cooperating in those operations is contained in the latter's report, *National Resources Development, Report for 1942*, pp. 30, 60-2.

[5] Public No. 326, 77th Congress, 1st sess.

[6] Executive Order No. 9082, issued February 28, 1942, under the authority of the First War Powers Act, P. L. 354, 77th Cong., approved December 18, 1941.

there still remained the need for coordination of the planning of housing, community facilities, access roads, and related health and welfare services, all of which were necessary to take care of the workmen to be employed in the new facilities.

Initial Construction Stage

Soon after the beginning of actual construction operations for the defense program early in the autumn of 1940, it was apparent that more than just industrial facilities and camps and bases would have to be built. In the President's words, speaking at a later date:[7]

> The national defense program has required a large expansion of existing military and naval establishments. * * *
>
> Military and naval strategy has been the controlling factor in determining the location of many of these new defense establishments. As a result, posts and plants have been necessarily located near communities without adequate public facilities and services for the large numbers of workers who arrived to construct them and who will be needed to operate the new establishments. There have been shortages of housing, insufficient sanitary and health facilities, overcrowding of transportation services, and inadequate recreational facilities. In fact, this shortage * * * has handicapped our rearmament effort in some areas.

To relieve these shortages of auxiliary facilities, the construction of "defense housing" (later changed to "war housing") was first authorized in October 1940.[8] At the same time, the President directed the National Resources Planning Board to provide technical assistance to local communities and to encourage them to prepare plans and appropriate zoning measures designed to protect the community against some of the disorganizing forces which the defense program sometimes was bringing in its wake.[9]

There followed in rapid succession the establishment of the following:

1. Office of the Coordinator of Health, Welfare, and Related Defense Activities in November 1940, later succeeded by the Office of Defense Health and Welfare Services.[10]

2. Division of Defense Housing Coordination.[11] In February 1942 the Division was abolished and its functions were transferred to the newly created National Housing Agency.

3. Office of Civilian Defense in May 1941.[12] Section 2 (b) of the order establishing this Office vested in the Office, in addition to the responsibilities for air warden and similar civilian defense services, the responsibility of keeping "informed of problems which arise from the impact of the industrial and military defense effort upon local communities" and taking "necessary steps to secure the cooperation of appropriate Federal departments and agencies in dealing with such problems and in meeting the emergency needs of such communities."

4. Financial assistance in the form of grants and loans for the construction of "defense public works" (later changed to "war public works"). This was authorized under Title II of the so-called Lanham Act[13] approved on June 28, 1941, and responsibility for its administration was placed in the Federal Works Agency.

5. Financial assistance for access roads to war industrial facilities and camps and bases authorized by the National Defense Highway Act of 1941, approved in November 1941.[14] The Public Roads Administration of the Federal Works Agency was made responsible for such access facilities.

6. Office of Defense Transportation, established in December 1941,[15] has as one of its duties the coordination of local transport facilities. This involved questions of both the type and amount of mass transportation facilities and their organization and coordinated operation.

7. Rent control and tire and gasoline rationing under the Emergency Price Control Act of 1942, approved on January 30, 1942,[16] administered by the Office of Price Administration. These controls were reflected in the plans for solving housing and local transportation problems.

8. National Housing Agency in February 1942 into which were consolidated all of the housing activities of the Government, including those for war purposes, for the duration of the war.

Of course the National Defense Advisory Commission and its successors, the Office of Production Management, the Supply Priorities and Allocations Board, and the War Production Board were heavily involved in this problem of "auxiliary" construction and services, first, because of their duties with respect to the review through the Plant Site Board of the original plant site proposals, and, second, because of their priority and allocation powers over the production of materials and equipment to be used for such construction.

It was evident from as early as in the winter of 1940–41 that the coordination of Federal "auxiliary" construction activities within a given community would be necessary if duplication and delays were to be avoided. In the first instance, military and industrial

[7] Message to Congress, February 24, 1941, H. D. No. 122, 77th Cong., 1st sess.

[8] Public, No. 849, 76th Cong., 3d sess. As the housing problem grew, responsibility for its solution was divided and subdivided until finally no less than 8 separate major Federal agencies were involved.

[9] For a more detailed report of the Board's activities in this connection see Sec. IV, following.

[10] Executive Order No. 8890 of September 3, 1941.

[11] Executive Order No. 8632 of January 11, 1941. A more detailed description of the Division's activities and an evalnation of its planning and programming activities is contained in *National Resources Development Report for 1942*, pp. 31–32.

[12] Executive Order No. 8757 of May 20, 1941.

[13] Public, No. 137, 77th Cong., 1st sess.

[14] Public No. 295, 77th Cong., 1st sess.

[15] Executive Order No. 8989, December 18, 1941.

[16] Public No. 421, 77th Cong., 2d sess.

facilities too often were planned and programmed with little reference to the effects on the areas selected. Often the first knowledge that a local community had of a war facility to be located in its midst was a notice in the newspaper announcing the proposal. Although the community might reasonably assume that the Federal agencies had already worked out the housing, transportation, and community facilities requirements for the area, such was not the case. In fact, often the agencies charged with planning for and providing such community facilities had no advance knowledge themselves of the proposals to construct military or industrial installations. As a result, much valuable time was lost in the necessary work of determining the need for and planning the housing, transportation, and other facilities required for war areas.

What was needed in each such "critical defense area" (as they were soon named), was an agreed plan of action to cover the Federal agencies' activities in the provision of the necessary community facilities and services. There were some proposals for a "Federal agent" in each such area to manage and coordinate the Federal plans for providing the auxiliary facilities. Other proposals were in the direction of utilizing the State and local defense councils, organized with the encouragement of the Division of State and Local Cooperation of the National Defense Advisory Commission, for such management and coordination responsibilities. The organization of the Office of Civilian Defense appeared for a time to offer the solution, but that Office's heavy and more pressing responsibilities in the field of the protective and civilian defense services precluded its attention to the problem of coordinating the planning of community facilities.

Following the first appropriation of funds in July 1941 for war public works, the question was again reopened. At first, it was proposed that machinery be set up so that an over-all plan covering the type and volume of housing and all types of community facilities for each critical area could be prepared and agreed to by the several agencies involved. This proposal finally evolved into a joint agreement between the National Resources Planning Board and the Office of Defense Health and Welfare Services, in November 1941, for the preparation of so-called Joint Area Reports.[17]

Unfortunately, this type of cooperative effort did not extend to the actual operating agencies which were responsible for site selection and construction of facilities.

A third and final attempt to produce an administrative arrangement for coordinated planning of wartime community facilities and services was made late in the spring of 1942. The organization of the National Housing Agency, the internal reorganization of the Federal Works Agency, and the establishment of regional offices by the War Production Board presented the opportunity for a coordinated and joint planning effort in the field for programming "auxiliary" construction and facilities. Accordingly, the National Resources Planning Board again endeavored to negotiate a joint administrative arrangement among the more than half-dozen Federal agencies involved. The procedure was designed to produce an over-all community plan which would "provide the proper shelter, health, and welfare facilities and other essential community facilities and services for persons engaged in the war effort in areas where the lack of such facilities for such persons impedes that effort." Each such joint plan was then to be the basis for each participating agency's construction and facilities program in the area concerned.

These negotiations were never completely successful, but in the meantime the agencies concerned were themselves striving to correct the situation.

From the planning standpoint, the establishment of the Division of Defense Housing Coordination had been a step forward because it had separated the two dissimilar functions of housing programming and construction, centralizing the first function in one agency, and allowing the construction to be carried out by the various housing agencies. This step, however, was not enough to insure a unified construction undertaking, inasmuch as the responsibility for construction had been spread so widely among various Federal agencies. Closer coordination was needed between the various constructing groups, and between these groups and the Division. This became particularly true after we entered the war and as military and war-industrial activities were vastly increased in scope.

To meet this need, a complete reorganization of the Federal housing activities was effected by establishing the National Housing Agency to take over practically all housing functions of other Federal agencies.[18] Three coordinate branches were set up within the agency, as follows:

1. *Federal Housing Administration*, with the same functions as the branch by the same name in the former Federal Loan Agency.

2. *Federal Home Loan Bank Administration*, including former functions of a number of home financing and refinancing units within the former Federal Loan Agency.

3. *Federal Public Housing Authority*, absorbing the former functions of the United States Housing Authority, Defense Homes Corporation, Farm Security Administration with respect to nonfarm public housing,

[17] For a more detailed account of the Board's operations under this agreement, see sec. IV, following.

[18] Executive Order No. 9070, February 24, 1942.

and all defense public housing (except on Army and Navy reservations) formerly divided among the Federal Works Agency, United States Housing Authority, Public Buildings Administration, Division of Defense Housing, Mutual Ownership Defense Housing Division, War Department, Navy Department, and Farm Security Administration.

In addition, the functions of the Division of Defense Housing Coordination were transferred to the Administrator of the National Housing Agency.

The effect of the reorganization was to concentrate in one single agency the planning, programming, construction, and financing of all public and private war housing. This made possible improved coordination of the entire housing program, with the assurance that a program once planned could be carried out according to the plan.

The programming of war housing under the National Housing Agency has been rendered more effective through three important steps: (1) The retention of the programming method first developed by the Division of Defense Housing Coordination, namely, the Locality Housing Program Reports; (2) the establishment of regional offices of the Administrator's Office to decentralize the programming process; and (3) the formulation of a war-housing policy by the National Housing Agency and the War Production Board, setting forth the place of war housing in the war program.

Through these three methods of programming, decentralization, and integration of policy, the war-housing program alone has had the benefit of a greater measure of planning than heretofore.

Concurrent with the organization of the National Housing Agency, the administration of the war public works program within the Federal Works Agency underwent considerable revision. The first extensive change was made in March 1942 with the abolition of the Division of Defense Public Works within the Federal Works Agency and the transfer of its functions directly to the Office of the Federal Works Administrator. This was followed in May 1942 by the establishment of nine regional offices of the Federal Works Agency to bring together more closely the activities of the constituent agencies—Public Roads Administration, Public Buildings Administration, Work Projects Administration, Public Works Administration—and the war public works activities operated through the Office of the Administrator. A further step was taken in July when arrangements were made to use the Work Projects Administration field offices in every State to receive applications for war public works projects, in order to simplify the placing of project applications by local public officials.

It was clear by the early summer of 1942 that the war program had intensified community problems, on the one hand, while on the other hand, material and equipment shortages were making it necessary that previously planned war public works programs be further stripped of less essential projects. Accordingly, the National Resources Planning Board's proposal for joint programming evolved into the creation of vital area boards by the Federal Works Agency to review war public works projects in the light of their urgency and to recommend priority status. The vital area boards were established in some of the most critical areas throughout the country. Their membership includes representatives of the War and Navy Departments, Maritime Commission, Federal Security Agency, and National Housing Agency, in addition to the regional director of the Federal Works Agency. In some cases the field staff of the National Resources Planning Board is represented. These boards were assigned the task of "stripping" the less essential projects, in addition to their more positive responsibilities of determining those community facilities needed to maintain an adequate and continuing supply of labor to meet the war's demands.

As yet, however, no adequate procedure exists for achieving a positive over-all coordination in the planning and programming of housing, community facilities and services, and local transportation.

Deferring Construction

The keynote of the Nation's facilities and construction policy for the duration of the war was sounded nearly two years ago. The President, in his annual Budget message to the Congress in January 1941 said that "During this period of national emergency, it seems appropriate to defer construction projects that interfere with the defense program by diverting manpower and materials."

Initially, this deferment policy was of a rather mild type. By refusing to grant priorities for the construction of certain less essential types of undertakings, the Office of Production Management, and later the War Production Board, exerted a delaying form of control over the construction schedules of certain projects that were encountering difficulties in obtaining materials. Later, several materials and equipment conservation orders forbade the use of specified critical materials or equipment in construction operations, regardless of whether or not they could be obtained without priority assistance.

Finally, the quickening tempo of our defense preparations late in the summer of 1941 (following the invasion of Russia and the declaration of the Atlantic Charter) began to create greater shortages in labor and materials for facilities and construction undertakings. Consequently, in October 1941, the Supply Priorities and Allocations Board announced the policy under

which no public or private construction projects that used "critical" materials could be started with the benefit of priorities during the emergency, unless such projects were either necessary for national defense or essential to the health and safety of the people.

The policy statement of the Supply Priorities and Allocations Board followed the earlier announcement by the Office of Production Management in September 1941, of the general plan to grant priority assistance for the construction of war-housing units. Neither of these policies actually ever did forbid the undertaking of nondefense construction, yet by refusing to grant priorities for critical materials, such as steel, copper, brass, bronze, and aluminum, for such construction, certain types of construction were made difficult, if not impossible.

Our entrance into the war made it necessary that some criteria be established indicating the relative importance of construction proposals, one to another, and, moreover, to other needs for materials and labor, whether those needs arise from civilian demand or from war necessities. This meant that availability of men and materials rather than availability of funds for construction became the controlling factor. In the field of public works, for example, budgetary considerations no longer presented the final criteria as to what projects were to be undertaken. Public works projects could be adequately financed and still their construction would be wholly dependent upon an assurance that their demands for construction materials did not interfere with other and possibly more important phases of our war effort. Accordingly, the National Resources Planning Board suggested four principles to govern the selection of construction projects, particularly in the field of public works, during the war.[19]

The conversion of our national industrial machine for our all-out war effort following Pearl Harbor made it necessary to cut all facilities and construction activities to the *absolute* minimum necessary for the war effort and to meet vital civilian needs. As one of the initial steps, the President on February 18, 1942, in a directive to the Federal Works Agency, outlined certain general policies to be used as guides in the selection of war public works projects for construction under Title II of the Lanham Act. The directive restricted the types of war public works projects to schools, hospitals, health centers, detention hospitals, fire-department buildings, recreation buildings, water and sewer facilities, and maintenance and operation of schools and hospitals. Furthermore, only temporary or semipermanent construction was permissible, and no projects were to be approved unless the wartime necessity had been certified by an appropriate war agency. The use of critical materials was cut to provide only for the bare necessities for the community facilities being constructed.

Later in the spring of 1942, following its organization, the National Housing Agency joined the War Production Board in a policy statement setting forth the place of war housing in the war program. The primary objectives of the war-housing policy, as set forth in the joint statement, were (1) to limit *all* housing construction to that which is essential for the war; (2) to provide war housing only to meet the needs arising out of indispensable migration of war workers; (3) to make materials available for immediate construction of such minimum war housing; and (4) to provide the war housing with reasonably adequate recreational, health, and service facilities, within the limits of available funds and materials. In addition to the primary objectives, the policy statement covered measures for conservation of critical materials and types of housing to be built under varying circumstances.

Soon thereafter, the War Production Board issued in April 1942 its "stop construction" order (L–41), which, for all intents and purposes, forbids the undertaking of any facilities or construction project of any significant size unless that project is specifically approved by the War Production Board. Supplementary and amendatory orders have been issued since that time, elaborating upon the provisions of this original order and restricting still further the size of an individual project that could be undertaken without prior approval.

This order was further reinforced late in May 1942 by a joint statement of the Chairman of the War Production Board and the Secretaries of War and Navy to the effect that a reduction had to be made in the consumption of construction materials and equipment by the elimination of nonessential projects or parts thereof, by deferring projects not needed immediately, or by appropriate changes in design and construction methods. Before any construction project could proceed, the directive stated, it must be found to meet the following criteria:

1. It is essential for the war effort, or postponement of its construction would be deterimental to the war effort.
2. It is not practicable to rent or convert existing facilities for the purpose.
3. The construction will not result in the duplication or unnecessary expansion of existing facilities.
4. All possible economies have been made in the project resulting in the deletion of all nonessential items and parts.
5. The structure of the project has been designed of the simplest type just sufficient to meet minimum requirements.

In line with this statement of policy, a formal agreement was made in July between the Federal Works

[19] *National Resources Development—Report for 1942*, January 1942, pp. 20-21.

Agency and the War Production Board to the effect that no application for a priorities certificate or an allocation of materials would be made for a war public works project unless the project involved met the conditions outlined in the May 1942 joint policy statement as outlined above. In addition it was agreed that first consideration would be given to water-supply projects and preference would be given to other types of projects in the following order: Power, fire-fighting equipment, sewer systems, access roads and bridges, and hospitals, health centers, schools, and recreational facilities. The order of the last four types were to be determined for each area by the Federal Works Agency and the Federal Security Agency on the basis of war need in that area. The policy was also restated that no projects would be submitted for Presidential approval without the certification of the war agencies concerned.

Eventually, squeezing the volume of the less essential construction undertakings failed to free any further significant construction capacity. By the summer of 1942 it was apparent that nothing less than a real programming and scheduling of the essential war facilities and construction would enable a managing of the construction resources of the Nation so as to obtain the necessary output.

Management Phase

A mechanism that could have been used for achieving a programming of war facilities and construction had been created as early as June 1940 when the President signed Executive Order No. 8455, providing for the planning and programming of construction undertaken or aided by the Federal Government. Unfortunately, however, before the administrative procedures under this order could be put fully into effect, the rearmament effort of the Government was in full swing. Consequently, the first opportunity for obtaining a full programming control of facilities and construction was lost.

As the scope of the war-production program steadily expanded throughout 1941, so did the requirements for new facilities and construction. While the necessity for these facility expansions was considerably lessened after the adoption of the industrial conversion policy beginning early in 1942, still the volume of planned expansions climbed. By the late spring of 1942 it was becoming evident that all facilities and construction so far planned and approved could not be undertaken because of the sheer physical limitations that were involved. Thus, a decision had to be made as to which of the war facilities and construction were less necessary, and then arrangements had to be made so to allocate construction materials and equipment that the undertaking and completion of the more necessary construction could be assured within an agreed upon schedule.

But administrative control of facilities and construction programming had diffused as rapidly as the volume of planned undertakings had increased. So much so, that centralized program control, organizationally speaking, was a "must" in any attempt to meet the situation. And, of course, such program control of facilities and construction was only one part of the larger problem of the planning and programming control of the entire war-production effort.

Coincident with the issuance of Conservation Order L–41 in April 1942, a Construction Bureau was established within the Production Division of the War Production Board, to bring more closely together the construction functions of the Board. The Bureau was directed to (1) service all construction essential to the war; (2) recommend construction project priority rating; (3) administer Conservation Order L–41; and (4) apply the principles of conservation of essential materials to construction projects. Through the establishment of the Construction Bureau the handling of all construction applications except those of the Army, the Navy, and the Maritime Commission was brought under a single War Production Board agency. An over-all estimate of requirements for construction material was made possible, thus providing basic data needed for the planning of a building program.

Subsequently, in the general realinement of the War Production Board's functions, announced on July 8, 1942, a Construction Program Division was established under the Vice Chairman on Program Determination. This Division was given responsibility for considering and programming *all* plans for capital expansion, whether military or otherwise, to insure that facilities expansion projects would be in accord with the maximum over-all program. The establishment of this Division under the Vice Chairman on Program Determination insured separation of construction programming from the actual operational work, the latter remaining in the Bureau of Construction under the Director General of Operations.

Furthermore, to consolidate the functions of various facilities and construction review groups that had previously been organized, the War Production Board established, on October 22, 1942, a Facility Clearance Board and a Facility Review Committee. The Facility Clearance Board assumed the duties of several review committees and, in addition, considers projects from the point of view of their necessity to the war. It has the final authority to approve or disapprove of any facility or construction project costing $500,000 or more, whether publicly or privately financed. The Facility Review Committee has authority to pass on all projects costing between $100,000 and $500,000 and may also review any facility or construction project, regardless of size or total cost, which may already be under way or approved and not yet started.

The establishment of these two clearance units within the War Production Board brings together, for the first time, control over all construction. All agencies, public and private, sponsoring construction projects must clear *all* such projects, through either the Facility Clearance Board or the Facility Review Committee. This clearance is made *in advance* of the assignment of priority ratings, and it seems to assure that priority ratings or allocations of materials will be granted only to projects which are part of the over-all facility and construction program.

As a final step in this reorganization process—at least insofar as facilities and construction programming is concerned—announcement was made early in November 1942 of another reorganization within the War Production Board which combined the Office of Program Determination with that of the Office of Operations to provide a close-knit organization to administer the War Production Board policies, including particularly the Controlled Materials Plan. Under the new organization, the Program Vice Chairman includes on his staff a Program Bureau and a Facilities Bureau. The Facilities Bureau assumed the duties of the former Construction Bureau and, in addition, is now responsible for determining the requirements and programs for construction. In effect, this Bureau operates as the staff agency for both the Facility Clearance Board and the Facility Review Committee.

These new policies, along with the changes within the War Production Board and the installation of the Controlled Materials Plan (to replace the Production Requirements Plan), taken altogether provide the means for a greater control than heretofore of the programming of facilities and construction.

Final Phase

Early in the fall of 1942 it was becoming very evident that, unless something drastic was done, the national facilities and construction program would get entirely out of hand. Early warnings had been sounded previously in June when shortages of materials, particularly metals, caused some revisions in the war industrial plant expansion program.

The situation reached a crisis, however, in October. At that time the War Production Board estimated the contemplated construction program for 1942 and 1943—including building equipment and machinery—at approximately $33.8 billion. Of this amount about $17.8 billion was scheduled for completion in 1942 with about $16 billion contemplated for 1943. As Chairman Nelson of the War Production Board observed: [20]

> As things now stand, facilities and construction, including many projects not related to the war effort, programmed for 1943 with the carry-over of uncompleted 1942 projects will absorb between ⅕ and ¼ of the total war effort. As a result, the aggregate demand of such projects for materials, labor, transportation, manpower, and technical and engineering services is so great as not only to jeopardize the various military and essential civilian production programs in general, but to force the most essential war projects dangerously behind schedule. * * * We cannot afford to continue to expend our substance in these times otherwise than in support of the war effort and so it is obvious that vast amounts of material and labor being currently expended in the present large public and private construction programs must be diverted into channels which will contribute directly to winning the war. In this connection, I am concerned not only with civilian, but with military construction as well. * * * Experience has indicated that this situation cannot be effectively controlled merely through granting low priority ratings. Unessential projects must be stopped.

In accordance with this statement of Mr. Nelson, the War and Navy Departments were asked to review and further restrict their facilities and construction programs, and priority assistance was revoked for virtually all nonmilitary construction for the Federal Government, except as it was directly essential to the future of the war effort. Subsequently, stricter regulations regarding privately financed housing were put into effect, and the Facility Review Committee, acting under its directive, began stopping publicly and privately financed facilities and construction projects on a wholesale scale.

As a consequence of these efforts to "cut-back" the program, the volume of facilities and construction activity for 1943 is currently being estimated at between one-half and two-thirds of its 1942 volume. For example, new construction activity alone—excluding building equipment and machinery—is currently estimated to reach about $13.5 billion in 1942, while forecasts for 1943 now place this at between $7 and $8 billion.

This reduction in future wartime facilities and construction programs is being obtained by a combination of several related policies:

1. Less essential nonmilitary construction—both public and private—is being virtually eliminated. All such building will, for all intents and purposes, come to a halt. Projects now under construction will be stopped as rapidly as possible. But, as the War Production Board has pointed out,[21] particularly in connection with the public projects that are being so abandoned, this—

> does not mean that such projects are to be permanently dropped. On the contrary, there will be special need for many such public works in the period following the end of the war to help take up the shock of reverting to peacetime economy. Works now deferred because of the war can, with benefit, be resumed at that time.

[20] WPB Release No. 2038, October 21, 1942.

[21] *Ibid.*

2. Planned war industrial facilities expansions are being postponed. Materials available now are considered too precious to be used for building plants to produce more materials at a future date. Of course this policy does not include the highly essential and critical plant expansion programs for synthetic rubber, aluminum, and some steel, aviation and other like items.

3. Troops are being quartered in hotels and other renovated commercial buildings instead of in new cantonments and camps.

4. War housing is being obtained by a "conversion program" that contemplates leasing privately owned homes and other buildings and remodeling them to provide additional living quarters for war workers and their families. This policy has been impelled, not alone, however, by the need to conserve critical materials by fuller utilization of existing buildings, but also by the *urgency* of the need for additional dwelling space in many congested areas.

Taken all in all, the end of the "facilities and construction stage" of our war effort is pretty well in sight. Its peak will have probably been passed before 1942 ends. After that, our construction activity should gradually taper off as essential projects are completed until it covers only: (1) those minimum operations that are absolutely indispensable for keeping our war plant and facilities in good running order; (2) essential health and safety measures for the protection of the population in general; and (3) military and naval construction overseas in connection with the operations of our armed forces. This forecast does *not* mean that construction operations are going to be practically nonexistent in the future. But it does mean that their magnitude will steadily decrease, for as we become "tooled up" for producing the weapons and munitions of war, the facilities and construction program will have accomplished the task assigned to it.

The period of declining activity which thus marks the final phase in the development of the wartime facility and construction program will bring, however, a multitude of new administrative and management problems to the fore. Some of the effects of the solutions to these problems will be felt during the war; others not until the post-war period.

PROGRESS IN PUBLIC WORKS PLANNING

Progress in public works planning during 1942, like almost every kind of governmental activity, was greatly affected by the outbreak of the war. Planning for the future was focussed more and more on the post-war period. A number of public works planning and construction organizations were abolished or merged with new agencies established to operate under war conditions. In addition, there was a clearing away of some confusion concerning the fields of jurisdiction as between existing Federal agencies and new governmental units established because of the emergency. To this extent, at least, distinct advances have been made in public works planning during 1942, although much more progress is necessary before the Federal Government can be considered to be adequately prepared to cope with post-war public works problems.

In this section, the advances in public works planning in general are first taken up. Then developments in the functional fields of land development and protection, transportation, and power generation and distribution are treated.

General Developments

The calendar year 1942 saw some important developments affecting public works planning in general. The more important of these were:

1. Congressional consideration of legislation to enable the preparation of advance plans for projects to be included in a post-war program of public works.

2. Congressional action on appropriations to enable the individual Federal agencies to prepare advance plans.

3. The termination of the activities of the Public Work Reserve in accumulating a reservoir of local capital improvement projects for construction in the post-war period (as recounted later in this part of the report).

Planning Legislation

One of the most important lessons to emerge from our experience with the depression programs of public works and work relief was the importance of advance surveys, investigations, and plans to the effectiveness of any works program to be used for employment stabilization. It was found that, without the existence of detailed plans for projects, the time lag between authorization of a works program and its actual operation was so great as seriously to impair its effectiveness. Thus, the advance preparation of detailed plans was shown to be necessary for the effective operation of a works program.

The coming of the national emergency naturally made this thesis applicable to a possible "post defense" program of public works. Indeed, as early as January 1941, the President, in his annual Budget message to the Congress had pointed out the necessity for preparation of plans for public works projects which were being deferred due to the emergency, so that these projects could be speedily undertaken in the post-emergency

period. In transmitting the National Resources Planning Board annual report for 1941,[22] the President on March 17, 1941, again pointed out the need for advance plans and surveys, and approved the establishment of a Federal planning fund to enable their preparation.

In response to the Presidential recommendations, identical bills were introduced [23] during the first session of the Seventy-seventh Congress, providing for the amendment of the Employment Stabilization Act of 1931 to authorize the appropriation of funds to the President for planning purposes. Under the proposed amendment, funds would be allotted by the President to Federal, State, and local governmental agencies, for the making of examinations, surveys, investigations, legal studies, engineering plans and specifications, all-inclusive plans and programs, and forms of legal proceedings to facilitate the selection of public works and improvements.

The basic considerations which led to the introduction of this legislation were twofold: (1) That some sort of a public works program will be required to bridge the gap in the post-war period between termination of war production and the resumption of full civilian production, and that this program must be fully planned in advance; and (2) that existing planning funds at the disposal of Federal, State, and local agencies are insufficient to do an adequate job of assembling such a program and preparing the necessary advance plans.

With this in mind, the legislation was so framed as to supplement existing Federal authorizations for survey and planning work, and to provide for advances to State and local governments for plan preparation by their own staffs and consultants. Thus, the plan preparation job would be done by the agencies that regularly prepare such plans, but on a much more satisfactory scale. There would also be a measure of centralized control of the size of the post-war program of planned projects.

The general principle of this legislation received wide support from many important governmental, planning, business, and labor organizations, as evidenced by the public hearings before a subcommittee of the Senate Committee on Education and Labor in November 1941. Representatives of these groups stressed the need for early preparation of project plans, to avoid recurrence of the delays which hampered the effectiveness of the public works programs during the thirties. They also pointed out the need for Federal funds to enable State and local governments, as well as Federal agencies, to do the preplanning work necessary to the establishment of a public-works program.

[22] *Development of Resources and Stabilization of Employment in the United States.*

[23] S. 1617, introduced by Senator Wagner, of New York; and H. R. 5638, introduced by Representative Belter, of New York.

The favorable reception which this legislation received from all interested groups resulted in its being recommended to both Houses of the Congress, by the respective committees. However, the House of Representatives' version of the bill (H. R. 5638) was defeated when it came up for consideration on February 19, 1942. The Senate counterpart (S. 1617) was never considered before the close of the session.

Planning by Federal Construction Agencies

As the shortages of material and manpower have grown more and more acute due to the increasing impact of the war program, nonwar Federal construction has been increasingly curtailed during the past year. One byproduct effect of this curtailment has been the greater emphasis placed on the preparation of project plans for post-war use. Even in an agency such as the Corps of Engineers which is extremely busy with the war construction program, the preparation of advance plans for civil projects comes in for its share of attention.

Corps of Engineers: Civil Works

Acting under directives from the Bureau of the Budget and on the basis of appropriations made by Congress for the fiscal year 1943, the Corps of Engineers has moved to concentrate its civil-works planning activities on the preparation of advance plans for the post-war period. This has meant the curtailment of the program for conducting preliminary examinations and surveys covering proposed improvements, and the shutting down of practically all new construction unrelated to the war.

To aid in the preplanning of approved projects, the Congress appropriated $2,000,000 for the use of the Corps of Engineers in preparing detailed construction plans for any authorized flood-control projects to be chosen by the Chief of Engineers. This sum was made available for fiscal year 1943, and is in addition to funds appropriated for construction of specific projects, which funds can of course be used for necessary plan preparation on such projects. In fact, many projects for which funds were appropriated for construction during the fiscal year 1943 have been deferred by the War Production Board and the Corps of Engineers until the material and manpower situation improves. Thus a backlog of planned projects is already being built up by the Corps of Engineers through operation of the policies of project deferment, and emphasis on preparation of detailed plans.

In appropriating the $2,000,000 to the Corps of Engineers for advance-plan preparation of authorized projects, Congress clearly indicated that it was aware of the necessity for accumulating a backlog of planned projects which would be immediately available after the emergency. The provision of funds for preparation

of detailed plans places these projects in a good position to beundertaken soon after the war.

Department of Agriculture: Flood-Control Program

When the war began, the program of the Department of Agriculture in planning for watershed improvements in the interests of flood control had not yet reached the advanced stage of the Corps of Engineers flood-control program. Most of the proposals were still in the investigation stage and had not yet reached the point where definite projects were recommended. As a result, when the war program made curtailments necessary, Congress eliminated from the fiscal year 1943 appropriations all additional funds for Department of Agriculture flood-control surveys, and directed the Department to expend its remaining available funds in completing those investigations which were farthest advanced.

Although this would appear to have the effect of cutting down the possible future backlog of this type of land improvement project, really it will not greatly effect the immediate post-war program of land improvement projects proposed by the Department of Agriculture in the interest of flood control. Indeed, by concentrating work on those projects most nearly completed, the congressional directive will serve to speed the building up of an immediate post-war program of such works. Although most of the projects do not require congressional authorization for construction, or special appropriation for advance preparation of plans, in order to insure that certain of the projects are ready to go, it will be necessary for Congress to authorize their construction, and to appropriate funds for preparation of the necessary detailed plans. It will also be necessary for Congress to provide funds for resumption of the survey program of the Department of Agriculture at the earliest possible date, if the long-range problems of flood control throughout the country are to be adequately handled.

Bureau of Reclamation: Surveys and Investigations

When the war came in December 1941 the Bureau of Reclamation, in addition to operating its large construction program, was engaged in making a large number of surveys and investigations in the Western States looking toward the provision of irrigation, power, and water supply facilities. Many of these were directly connected with the defense program, especially the investigations of hydroelectric power possibilities, but the greatest proportion were concerned with the extension of irrigation facilities.

The shortage of materials has since caused the drastic curtailment of the Bureau of Reclamation construction program to an extent where now only projects directly connected with the war program are being continued. There has been much less curtailment of the survey and investigation program, however, except the curtailment occasioned by manpower and transportation shortages. One reason for this is that critical materials were not involved in the survey programs; also, appropriations had already been allotted for fiscal year 1942.

Insofar as the survey program of the Bureau of Reclamation is concerned, Congress did not reduce it drastically in making appropriations for the fiscal year 1943. The Bureau had expended approximately $2,000,000 for surveys and investigations during the fiscal year 1942; and the fiscal year 1943 appropriation was set at $1,400,000 by the Congress. In justifying its request for funds, the Bureau of Reclamation stressed the necessity of continuing certain power and irrigation investigations which it considered vital to the war effort. The Bureau also pointed out the need for planning projects for the post-war period especially those which through irrigation would provide additional agricultural lands.

Although the survey and investigation program of the Bureau of Reclamation is proceeding, it is probable that it will be centered on preparing detailed plans for those surveys which are farthest along toward completion. Because projects proposed by the Bureau of Reclamation need only approval of the Secretary of the Interior and the President to become authorized, the stage is set for the preparation by the Bureau of a backlog of projects which will be ready for construction when appropriations are provided. This backlog will consist of projects already started but which have been halted due to the war, and new projects arising from the surveys already completed or now under way.

Public Roads Administration: Advance Highway Plans

The National Defense Highway Act of 1941 [24] authorized an appropriation of $10,000,000 for preparation of detailed plans and specifications for post-war highway projects. The act provided that these funds should be apportioned by the Public Roads Administration among the States and matched with State funds according to the usual Federal-aid plan.

This advance planning authorization resulted from a recommendation in the Defense Highway Report [25] undertaken by the Public Roads Administration at the direction of the President. The report recommended that an appropriation be made for the preparation of advance engineering surveys and plans for future development of the strategic network of highways, and bypasses around and extensions through municipalities and metropolitan areas.

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[24] P. L. 295, 77th Cong., 1st sess.

[25] Public Roads Administration, *Highways for National Defense*, February 1941.

In the summer of 1942 the Public Roads Administration undertook the first installment of the program of advance highway plans. Actual engineering work, extending from the conception of the improvements through surveys and the preparation of detailed plans and specifications, was instituted for a group of highway improvements estimated to cost nearly $500,000,000. Only large projects requiring considerable time and study in planning were included in the advance planning program. Other highway projects, requiring only normal engineering work in advance of construction, were excluded and are to be planned by the States under the regular Federal-aid procedure.

This program of advance plan preparation of highway projects jointly by the Federal and State Governments is the first example of Federal aid to State governments for the preparation of detailed plans for post-war projects. It represents an extension of the existing Federal aid highway policy rather than an integral part of an over-all policy of Federal aid to local governments for post-war plan preparation as envisaged in Senate bill 1617. Because it thus sets up an independent system of grants for local plan preparation, this program for highway planning aid may conflict or overlap with a more inclusive plan. Thus, it seems desirable that future congressional policy relative to local aid for post-war plan preparation should take into account this possible conflict, and eliminate all such possibilities either by incorporating the highway advance-planning fund into any over-all system to be set up, or by carefully defining the scope of any general advance planning legislation and its relation to the highway advance-planning program.

Irrigation, Minerals, and Power

Another example of the use of planning procedures within a single Federal department was the preparation by the Department of the Interior of a "war program," released in February 1942. Activities of the Department were affected greatly by our entry into the war, as it has jurisdiction over much of the western mineral, grazing, and forest land, as well as controlling large irrigation and power projects. It became necessary to speed further the output of minerals and power from western lands and rivers, while work on national parks and to some extent on new irrigation projects became less important.

In order to prepare a detailed plan and program for the Department, a War Resources Council was set up soon after Pearl Harbor with directions to mobilize for war all of the resources under the Department's jurisdiction. The result was a seven-phase program calling for the cooperation of all bureaus and divisions in the Department to supply essential metals, oil, power, fuel, helium, food, land, water, and timber for war needs. The Bureau of Mines and Geological Survey had chief responsibility for mineral production, and the Bureau of Reclamation and Bonneville Power Administration were the chief power agencies. Irrigation and land development were for the most part under the Bureau of Reclamation and Office of Indian Affairs, while grazing problems were handled by the Grazing Service and the General Land Office.

While the program was directed toward the filling of war needs, it had important post-war implications, particularly as concerns the expansion of power facilities and the development of new sources of strategic minerals. More important than possible post-war implications, however, is the fact that it was possible to prepare within 2 months an over-all program, worked out in considerable detail. This indicates that a similar departmental procedure could be used to consider post-war problems and action programs, although possibly operating over a longer period of time.

Bonneville Power Plan

The Department of the Interior in its "war program" set forth the general outlines of a war-power plan for the Western States. The Bonneville Power Administration, a unit within the Department, followed this with a more detailed power program for the Pacific Northwest. The Bonneville program was based on the assumption that the war would continue over a long period, and the power facilities were therefore programmed with a view to the necessity for additional power production as the war lengthens. The basic proposition is well stated in the following quotation from the Introduction to the Six-Year Program:

> The third six-year (fiscal years 1944–49) program * * * is essential to advance previous schedules of construction of transmission line, substation, and generation facilities to make power available for the expanded program necessary to produce vitally needed war materials. This will require a continuous development of power and other resources of the Pacific Northwest until the war is won.

The Bonneville program for power for the Pacific Northwest is an excellent example of the type of power planning which can be done by a single agency dealing with an interrelated area.

Tennessee Valley Authority Plan

Another example of power planning on an areal basis is presented by the Tennessee Valley Authority which has changed its peacetime program to fit war-power needs in the Tennessee Valley. This has been accomplished by expediting the construction of new dams and power plants and the installation of new power units in dams already built, and by operating the unified system projects to insure increased energy output, consistent with essential needs for other purposes.

Although war needs are now of first importance, the projects now undertaken because of the war are all designed to fit into the ultimate plan for the unified development of the Tennessee River and its tributaries, for the joint purposes of navigation, flood control, and the production of electric power.

The planning flexibility shown by the Tennessee Valley Authority in adapting its long-term power plans to war needs without sacrificing any of the ultimate benefits of the program is an example of what can be done by a regional planning agency. This ability to make rapid planning adjustments has been of great help to the war program as it applies to the Tennessee Valley. It will be equally of value in the post-war period when plans must be followed up with prompt action.

Over-all Power Programming

Although the power plans of the Department of the Interior, Bonneville Power Administration, and the Tennessee Valley Authority, discussed above, indicate what should be done to assure energy output of certain magnitude, the plans have necessarily been modified to fit into the over-all national war-power program. Responsibility for war-power programming has been centered in the Power Division of the War Production Board, by virtue of a joint agreement approved by the President between the Federal Power Commission and the War Production Board.

The agreement was made in April 1942 to clear up all possible confusion of responsibility between the Federal Power Commission and the War Production Board and to avoid duplication in the administration of the war-power program. Under the agreement the War Production Board is responsible for the following:

1. Development and administration of programs to allocate power equipment and materials to areas where the war production or military need is urgent.

2. Determination of power supply and demand in relation to the war-production program and essential civilian activities.

3. The planning, development, and administration of power supply allocation programs.

4. The mobilization of power to meet specific war industry and military requirements, including expansion of power capacity and coordination of existing transmission lines and power plants.

The agreement specified that the Federal Power Commission would have the following responsibilities:

1. The licensing and regulation of privately constructed hydroelectric plants.

2. The fixing of rates for transmission and sale of electric energy, control of its importation or exportation, and the disposition, acquisition, or merger of public utility properties.

3. The supervision of accounts and rates of depreciation of public utilities.

4. The collection of information and statistics concerning the production and use of electric energy throughout the United States.

5. Surveys and explorations of river basin developments and studies of power installations in connection with flood-control programs.

6. Protection of the power supply against hostile acts in cooperation with utilities and other Government agencies.

In addition the Power Commission would make available to the Power Division of the War Production Board any studies, compilations, or data requested, and would loan personnel to the Board for specific tasks.

The effect of the agreement is to concentrate in the Power Division of the War Production Board the power planning and programming functions made necessary by the war, including control over all new construction and over interconnections. The Federal Power Commission retains its normal functions of regulation, licensing, and data collection, and cooperates with the War Production Board in furnishing information and personnel.

Although the over-all control of wartime power programming is not a responsibility of the Federal Power Commission, this does not necessarily have any bearing on power programming for the post-war period. Because of its position as the only Federal agency taking an over-all peacetime view of the power resources of the country, the Federal Power Commission ought to be in a good position to guide the preparation of a comprehensive power program for the post-war period. Such a program could present in a general way the needs of the various sections of the country and could also suggest key projects. The more detailed programs for certain areas could then be worked out by other Federal agencies, including regional agencies such as the Tennessee Valley Authority, but these programs ought to fit into the over-all framework as set up by the Power Commission. Only through some such cooperative effort can post-war planning for power be done in a coordinated manner and without duplicated effort and conflicts of authority.

PROGRESS IN FEDERAL PROGRAMMING

Introduction

Heretofore, the Board has presented annually, since the issuance of Executive Order No. 8455 in June 1940, a 6-year program of construction undertaken or financed by the United States Government.[26] This program has usually consisted of three parts:

1. Projects recommended for construction by the construction agencies (Class I) (i. e. to be built by the regular Government departments or agencies or by Government corporations for the Federal account) for the succeeding fiscal year.

2. Estimates of the Federal share for construction to be financed by the construction agencies (Class II) (i. e. by grants and loans to State and local governments and loans to private agencies and individuals and guaranties of private loans) during the succeeding fiscal year.

3. The "shelf," or "reservoir," or "backlog"—whichever term may be preferred—of construction, insofar as the construction agencies (Class I) are concerned, that would be available for undertaking in future years. Ultimately, it was planned to include in this shelf the future programs of the construction agencies (Class II) when these programs were developed.[27]

This year such a program is not being presented in its entirety. No presentation is being made of the first two parts i. e. those dealing with recommendations as to projects to be undertaken or construction to be financed by the United States Government. The reasons for the omission of these parts this year are threefold:

1. The future status of all nonmilitary construction of the Federal Government is in doubt. There is no question but that some construction that would ordinarily be undertaken has been deferred, at least until the end of the war. On the other hand there are many projects whose construction will depend entirely on the course of the war, the demands for materials, or the urgent need for the public services the projects make available.

2. Military and naval construction plans and requirements must, for reasons of national security, remain a secret. Furthermore, these construction requirements change with the fortunes of war and their possible fluctuations cannot be reasonably foretold at this time.

3. Programming of all wartime construction has just been instituted under the priorities and allocation powers of the War Production Board, as previously described in an earlier section of this report. Currently, this programming is proceeding largely on a day-to-day basis although when the recent reorganization within the War Production Board has completely been put into effect, longer range programming will be possible.

It is true, of course, that the war has greatly extended the United States Government's role in construction activity. In the 5 years immediately preceding the beginning of our intensive rearmament efforts in 1940, the Government's participation (by means of direct expenditures, grants, loans, and guaranties) in total construction activity averaged about 50 percent. But in 1942 it is estimated that this participation will be about 75 percent with the total volume of public and private construction activity approximating $13.5 billion, more than it has ever been in the Nation's history.

Equally as significant as the volume of the Government's participation in war-construction activity has been the character of that participation. Today there is practically no type of a construction project that cannot be undertaken or financed under the Government's wartime powers.

These facts only serve to focus attention more than ever upon what the possible volume and character of Federal construction participation will be when the war is over. In our effort to obtain full employment of our resources and manpower for wartime purposes, there appears to be little doubt that facilities and construction activity has played a vital part, and that the Government's participation in that activity was indispensable. When the post-war era comes, the Government's responsibility again seems to be clear. Under the Employment Stabilization Act of 1931 it is declared to be the policy of the Congress so to manage the volume of construction undertaken or financed by the Government as to assist in achieving and maintaining the stabilization of employment and industry.

Accordingly, this part of the report is directed toward reporting upon the Board's activities in encouraging the planning and programming of construction to be undertaken or aided by the Federal Government in the post-war period and the size of the "shelf" of projects so far accumulated. The first section that follows details these activities with respect to Federal construction agencies (Class I), the next with regard to Federal construction agencies (Class II), and the third the efforts to encourage and assist State and local agencies to formulate and adopt programming procedures.

[26] Cf. "*Development of Resources and Stabilization of Employment in the United States*," and "*National Resources Development Report for 1942*."

[27] See sec. 2 below (entitled "Federal Construction Agencies (Class II)") for a report on the progress in developing procedures for reporting these programs.

1. Federal Construction Agencies (Class I)

A. Programming Under War Conditions

Procedural Changes

After the United States' entry into the war it was evident that the 6-year programming procedures just coming into full operation in the construction agencies (Class I) would necessarily undergo some drastic changes. The full development of the wartime policy of deferring projects not absolutely essential to war activities along with the continuing uncertainty as to material allocations for even those projects directly related to those activities, rendered advance programming for a 6-year period somewhat difficult, to say the least. While surveying and planning of individual post-war projects did continue on a somewhat limited scale, still authorizations and appropriations were generally lacking. The reporting and coordination procedures for surveys and project proposals continued and an expanded project review process (as described in a later section) was established and put into operation.

But the main difficulties arose in trying to set up 6-year program schedules for the projects in each agency. Under established procedures, the recommended 6-year program and scheduling of projects (submitted each year with the agencies' budget estimates) was so arranged that the first year of the program conformed to agencies' budget estimates with a developing program for the balance of 5 years. However, in some instances under the wartime policy of deferring construction, no budget estimates for construction were being submitted, or if they were, they represented only a small porportion of the agencies' "normal" peacetime programs.

Consequently, a new procedure for programming was suggested, with adjustments to fit the varying conditions. In general, there are three methods currently in use among the construction agencies for preparing and maintaining currently their 6-year programs:

1. The nonmilitary construction agencies that do have projects related to the war effort are currently maintaining two advance programs. The first of these programs is a "war program", i. e. the projects are related to the war effort and the scheduling is proposed on the assumption that materials allocations will be made for these projects and that they will go forward. The second program they maintain is a "peace program", i. e. when the war is over, this program can be undertaken at once under the scheduling of projects that is proposed.

2. Another group of agencies maintain and revise annually a 6-year program with the first year of such a program left blank.

3. A last group of agencies have proposed a 6-year program which they propose to undertake when the war ends. These programs once proposed are not revised annually but remain as they are until the war ends.

The agencies included in categories 2 and 3 above are generally not involved in current construction of war-related projects. But at this point, one thing should be emphasized again. Without proper financial and legislative support during the war for the instruments of the programming process, post-war programs cannot be prepared and kept in a "ready position" for undertaking when the war is over. It is true, of course, that authority for the Federal construction agencies to prepare 6-year programs exists in the directives of the Employment Stabilization Act of 1931, but adequate funds are not available to them to develop the over-all plans on which such programs should be based.

Worse yet, the projects that are the very basis of these programs must, in many cases, still be surveyed, investigated, and detailed blueprint plans and specifications prepared for them.

The recommendations made in the reports Development of Resources and Stabilization of Employment in the United States, 1941, and National Resources Development Report for 1942 are as valid and important as when they were made. Detailed plans *must* be prepared *now* for post-war public construction undertakings. Where necessary, legislation *must* be enacted so as to enable the appropriation of funds for such plan preparation. Unless this is done, plans will *not* be ready and then when the time comes in the post-war era for demobilizing our war economy, there will be maddening delays in trying to put men and materials to work on public works projects.

Project Review

Under the terms of Executive Order No. 8455, the Board is responsible for receiving and correlating plans for public construction projects proposed by the various construction agencies of the Government. This involves close scrutiny, careful analyses, and correlation of the development plans for the activity, functional purpose, or geographic area that may be involved. It means that these plans must be studied in advance of any proposals from the Federal agency concerned to include such projects in its program or in its Budget estimates.

Coincidental with the preparation of the Budget in the fall of each year, the Board is then able to advise the President and the Bureau of the Budget as to whether projects included in the construction agencies' 6-year programs and Budget estimates are in harmony with national, regional, State, or local development plans. The staffs of the Bureau of the Budget and of the Board work together closely during this period.

In the past, the process of planning correlation under-

taken by the Board has involved an evaluation of the various project proposals by means of three different types of operations:

1. The representatives in Washington of the Federal agencies that are concerned with particular types of project proposals have reviewed and evaluated the proposals. Such evaluations proceeded through the technical committees of the Board that deal with the development of the particular resources concerned, such as water resources, land resources, power development, etc.

2. Through its regional offices, the Board also has attempted, where practicable, to clear the project proposals with regional, State and, when necessary, local planning agencies. A number of administrative devices have been used to effect the field correlation: through the drainage basin committee organization maintained by the Board; through regional planning commissions composed of representatives of the Federal and State agencies concerned in the area; and through various temporary areal planning and study groups organized for particular jobs.

3. Section 8 of Regulation No. 1, issued under the authority of the Executive order provides for the procedure to be used in correlating the reports on proposed projects by making possible the forwarding of such reports to each construction agency that may be affected or concerned by the proposed activity reported. As promptly as possible, an agency to which such a report has been referred by the Board is required to report any conflicts with any of its activities then in progress or contemplated, along with its recommendations for suitable adjustment of these conflicts. Also, a weekly confidential bulletin, Status of Construction Projects—Federal Construction Agencies, has been circulated to the chiefs of and selected persons on the staffs of the Federal construction agencies in order that they may have a record of all surveys or projects being proposed or undertaken by other Federal agencies. In this manner, they may readily determine whether any such surveys or projects would be in conflict with or in need of coordination with surveys or projects contemplated by their own agencies.

At the beginning of the current fiscal year these correlating operations were reinforced by the Board when there was established within Division C a new section called the Project Review Section and the Project Review Committee. The functions of this section and the committee are described in the first part of this report.

At the outset, the section and the committee will review the construction proposals of the following agencies:

Tennessee Valley Authority.
Federal Power Commission.
Department of Agriculture:
  Office of Land Use Coordination.
  Soil Conservation Service.
  Forest Service.
Department of the Interior:
  Bonneville Power Administration.
  Office of Indian Affairs (selected items).
  Bureau of Reclamation.
  Fish and Wildlife Service (selected items).
  National Park Service (selected items).
Department of State:
  International Boundary Commission, United States and Mexico.
Navy Department:
  Coast Guard (selected items).
War Department:
  Corps of Engineers (civil works).

The construction programs of these agencies constituted over 90 percent of all construction undertaken by the Federal construction agencies (Class I) during 1940, exclusive of construction undertaken for national defense and for government administrative purposes.

In addition, as practicable and desirable, the section and the committee will give consideration to such portions of the public works programs of the following agencies as are susceptible to profitable review:

Department of Commerce:
  Weather Bureau.
  United States Coast and Geodetic Survey.
  Civil Aeronautics Administration.
  Civil Aeronautics Board.
  Reconstruction Finance Corporation (self-liquidating).
Federal Works Agency.
Department of the Interior:
  United States Geological Survey.
  General Land Office.
  Grazing Service.
  Bureau of Mines.
  Alaska Agencies.
Department of Agriculture:
  Rural Electrification Administration.
National Housing Agency.
Federal Security Agency:
  Public Health Service.

It will probably not be found feasible, in the beginning at least, to bring all of the construction proposals of the foregoing groups of agencies continuously into the review process. However, some of the individual projects which these agencies build, control, or operate, and over which they maintain control, are of such importance to long-range planning that they cannot be overlooked.

Major emphasis is being given to projects of major magnitude or far-reaching significance, and projects are being selected for review with this aim.

The Project Review Section and the Committee will use a rating scale consisting of three categories in their review of the projects brought before them. In the

first category will be placed those projects considered to be of high value, and free of conflict with other proposals or with existing development plans. In the second category will be those projects which, while free of conflicts, are either considered to be of secondary importance or to have been inadequately investigated, and also those which appear to be in conflict with other plans. The third category will comprise the remaining projects.

Nonstructural Improvements

The development of a well-coordinated program of post-war public works and improvements requires the concurrent planning and programming of both structural and nonstructural improvements. The first step in this process was taken under Executive Order No. 8455 in the development of programs of structural improvements. The second step followed in the summer of 1942.

Concurrently, with the organization of the Project Review Section, discussions were begun with representatives of the Departments of Agriculture and the Interior as to the manner of setting up and reporting nonstructural improvement programs. Such programs would consist of various types of land protection and improvement activities (involving very little or no construction work) such as forest-fire protection work, soil-erosion control, range-land protection, etc. A large part of these activities were previously carried on under the Civilian Conservation Corps.

As a result of these discussions with the representatives of the two Departments several points relative to this problem have been tentatively agreed upon:

1. Since in many types of land improvement and protection activities, the construction program is only a small part of—or is largely incidental to—a major improvement or protection program, the two types of improvements, structural and nonstructual, should be combined into a single program for all planning and reporting purposes under Executive Order No. 8455. Subsequently, a list of the programs in both Departments that would be treated in this fashion was worked out and agreed to.

2. Attempts will be made to define a reasonably uniform classification of the types of land improvement and protection work that are involved in these programs (e. g., what is meant by the term "forest-fire protection improvements" and the types of work included in such a classification).

3. Study will be given to the problem of "project areas" for each type of improvement work so that the programs can be broken down and detailed upon a workable basis for administrative purposes. This, in turn, should facilitate the review and correlation of these programs by the Project Review Section of the Board.

4. Procedures for reporting the programs to the Board, including forms, frequency of reports, system of documentation, etc. will be developed by the two Departments with the cooperation of the Board.

5. At intervals, the Board will call together an overall interdepartmental-programming group to work out "trial" national land-improvement programs of different magnitudes in order to be currently prepared for an actual call for such a program if and when the national interest requires that such a program be put into effect.

It is hoped that if this procedure can be fully put into effect, the planning and programming of land improvement and protection activities can be considerably strengthened. Then if in the post-war period there are demands for work projects which require small amounts of materials and large amounts of labor—and which can be stopped and started easily, thus facilitating the flexibility of an over-all work program—programs that can be put into operation rapidly will be readily available.

Economic Analysis

The Board's report, *The Economic Effects of Public Works Expenditures, 1933–38,* published in 1940, presented for the first time, employment and material order patterns for various types of public works projects. These patterns were based upon a sample analysis made by the Bureau of Labor Statistics of projects financed wholly or partially from Federal funds in the period from 1933 through 1938. These patterns were presented in the report in connection with the problem of setting forth criteria for selecting projects for a public works program so as to obtain the desired flexibility in the program's operation.

Subsequently, and in order to supplement the sample of important types of construction analyzed in the report, *The Economic Effects of Public Works Expenditures, 1933–38,* the Labor Pattern Survey of construction projects was undertaken in November 1939 by the Work Projects Administration, under the sponsorship of the Bureau of Labor Statistics with the technical cooperation of the National Resources Planning Board. The survey, based on a larger and more representative sample, makes possible a continuation of the study of the characteristics and trends of construction projects financed wholly or partially from Federal funds. The scope of the study was somewhat increased, since several types of construction not included in the original study made for the Board's report were added. Findings of the original study could thus be tested in the light of more complete samples, covering every geographic division of the United States, and each size group in the major types of construction projects undertaken.

The basic objective of the Labor Pattern Survey was to examine the timing and level of employment peaks, the months required to reach completion, and the volume of on-site man-hours per dollar of contract cost or, in other words, characteristic labor patterns of various classes of projects. Such patterns would furnish a basis upon which to determine the choice of groups of projects which would provide, over a predetermined period of time, the requisite amount of employment appropriate to the anticipated conditions. As such, these patterns are indispensable to the public-works programming process.

The problem of scheduling public-works programs through the selection of individual projects becomes important in the policy of meeting post-war dislocations in such a way as to minimize their most painful effects. Under such post-war conditions, the scheduling of various types of public works for construction must bear some relation to the expected volume and location of unemployment, as demobilization of armed forces and war production progresses. The speed with which civilian nondurable goods could be produced, and the volume of employment furnished by these industries, the amount of unemployment remaining, together with the length of time required for retooling for manufacture of productive equipment and durable goods, would be the setting into which the public-works program would have to fit. Initial scheduling of public works programs, as well as their volume and nature, and the occurrence and level of peaks of employment, continue, therefore, to be vital features of a post-war public-works program study.

The survey has now been completed to the point where a report can be issued summarizing the preliminary findings of the analysis. Such a report is now in the process of preparation and will be issued at an early date under the joint sponsorship of the Board and the Bureau of Labor Statistics.

Furthermore, on the basis of this report an analysis will be undertaken, again jointly by the Board and the Bureau of Labor Statistics, of the employment patterns of the "shelf" of projects in the future programs of the Federal construction agencies (Class I). From these analyses, it will be possible to tabulate "trial" programs to meet varying employment conditions. In this way, experience will be obtained so that when the war is over and national policy so demands, public-works programs of varying magnitude and employment characteristics can be proposed rapidly and more efficiently than it has been possible in the past.

B. Post-War Program of Public Construction and Improvement

This section with accompanying table (appearing at the end) summarizes the projects potentially available for construction in the post-war period as proposed by the Federal construction agencies (Class I)—those that build for the Federal Government's own account—and reported to the National Resources Planning Board under Executive Order No. 8455. The projects are grouped, according to their stage of readiness, as follows:

1. Projects involved in surveys now under way.
2. Unauthorized projects.
3. Authorized projects or those requiring only Presidential authorization.

In the first of the above groups are included those projects that are currently reported to the National Resources Planning Board as being under study by the sponsoring Federal agencies. Many other projects are undoubtedly being studied on an informal basis by Federal agencies, but, because they have not yet reached the proposal stage, no information is available as to volume of such projects. No attempt has therefore been made to estimate the probable cost of such projects. All projects in this first group are quite tentative and, at this time, are not immediately available for construction.

The second group above consists of those projects which have been proposed by Federal agencies, but which have not yet been authorized by Congress. Because congressional authorization is lacking, no detailed plans have been prepared for these projects, and it is not likely that many of them will be available for construction in the immediate post-war period unless authorization is forthcoming.

The third group of projects consists of (1) the additional work required after June 30, 1944, to complete projects which are now, or have been, under construction, and (2) those authorized projects which are available for future construction. In the case of those projects already started, plans have previously been prepared or are in process of preparation. Construction of these projects can therefore be resumed almost immediately after the war, if necessary. For authorized projects available for future years, plans have been prepared, or can be prepared as soon as funds are made available. Hence, many of these projects can be considered as being available for immediate post-war use.

The post-war program of projects presented herein is further divided into seven major purpose classifications as follows: Land development and protection, promotion of transportation, power generation and distribution, education, welfare and health, sanitation and water supply, and government administration. Within most of the major classifications the kinds of work to be undertaken are further detailed. A classification for defense projects is not included for obvious reasons.

A. General Summary

Size and General Content

The total volume of construction and improvement work in the program is estimated to be $7,695,000,000. This compares with an estimated volume of $6,360,000,000 in the post-war program, as of January 1, 1942; and $4,423,000,000, as of January 1, 1941.[1] Although a certain amount of this increase is due to a more complete reporting of proposed projects by Federal agencies, a substantial proportion of the increase reflects the submission of new project proposals. Furthermore, the size of the program is expected to increase further as additional Federal agencies submit revised and more comprehensive programs.

Within this large program of post-war works there are naturally many variations as to scope and size of individual agency programs, especially in view of the large number of agencies whose reports go to make up the program. In general, the major Federal construction agencies, including the Corps of Engineers and the Bureau of Reclamation, have reported their full programs for the future, as these programs are presently constituted. Other Federal construction agencies, including the important Department of Agriculture, have not yet reached the stage where it is possible for them to report their full post-war programs. These limitations and variations of the various work programs will be more fully discussed when the functional groups are taken up below.

The post-war program includes both construction work and work associated with land development and protection which is not strictly of a construction nature. It has become increasingly apparent that no rigid lines of demarcation can be drawn between construction and nonconstruction work in programs of forest, range, or cropland improvement, soil conservation, flood control, drainage, and irrigation. Therefore, no attempt has been made to limit the over-all program to projects of a strictly "construction" nature. The nonconstruction programs are, however, reported only for agencies from the Departments of Agriculture and the Interior, which have jurisdiction over practically all land conservation and development work of the Federal Government.

Project Characteristics

From the standpoint of suitability for contributing to employment stabilization in the post-war period, the most significant information as to the size and content of post-war programs has to do with the following:

1. The size of individual projects in the program, and the construction volumes contained within each size group.

2. The types of projects, with particular reference to whether or not projects can be started and stopped easily without loss of utility.

3. The status of plan preparation for projects, and the relative complexity of plans necessary to begin work.

4. The functional use of projects and programs in relation to need for such kinds of projects in the various regions of the United States.

Only preliminary information is now available on the relative proportions of the various size groups in the entire program. Projects in the program range from small works costing $1,000 or less to large and complex projects costing over $1,000,000. There is a large volume of projects costing under $50,000, chiefly relating to land and forest improvement, but also including much river and harbor work. Public buildings and roads are important types of projects in the cost range from $50,000 to $1,000,000. Most of the large power, irrigation, and flood-control projects are found in the cost range from $1,000,000 to $20,000,000. Only a few very large projects are found in the group costing over $20,000,000.

Size of project is an important consideration in a post-war works program, chiefly because the smaller projects, in general, can be started and stopped more rapidly than larger projects. On the other hand, larger projects, once under way, are capable of maintaining a large volume of employment over a considerable length of time. A well-balanced program must, therefore, have suitable proportions of projects of various sizes, if it is to be adaptable to the number of possible conditions which might arise in the post-war period.

Another project characteristic, somewhat associated with size of project, is the type. The significance here is that certain types of projects, such as land improvement, range and forest development, and levee and channel improvement, can easily be stopped at any time without much, if any, loss to the work already done. Buildings and dam projects, on the other hand, once started, must be carried on to substantial completion if any use is to be had of the structure, and if deterioration losses are to be avoided.

Therefore, to be completely useful, a post-war program must contain a substantial proportion of those projects which can be "built by the yard"—those which are capable of being started and stopped with small loss—as well as projects which must be carried through to completion.

It is not possible to give exact figures on the relative proportions of these two types of projects, but a conservative estimate of the volume of extremely flexible projects is $2,000,000,000 of the total of almost $7,700,000,000 in the reservoir.

[1] Cf. *National Resources Development Report for 1942*, pp. 217–222; and *Development of Resources and Stabilization of Employment in the United States*, p. 78.

Another important factor governing the usefulness of projects in a post-war program is the existence of detailed plans and specifications to enable more immediate starting of projects. Here again, the types and sizes of projects are contributing factors, inasmuch as some types of projects need only a small amount of preplanning or can be built with standard plans; also the smaller-size projects generally require much less over-all planning than the large, complex construction jobs. Although an accurate estimate is not available of the volume of projects for which plans are already prepared, it is safe to say that plans are available for probably no more than a $1,000,000,000 volume of projects.[2] Many projects included in this estimate require little detailed planning or only standard plans, but for others complete detailed plans and blueprints are available.

Although a workable program from the standpoint of post-war employment could be based upon the three characteristics discussed above, it would have little meaning unless it were also balanced from the standpoint of function. The program, therefore, must also be balanced as between the uses to which the projects are to be put. Such uses as flood control, transportation, power development, irrigation, welfare and health, and government administration and research must be represented in some equitable manner in the post-war program if proper national development is to result. Furthermore, there must be an equitable areal breakdown as between the various sections of the country, both to provide for works in areas where the need for public improvements is most critical, and to provide employment where it is most needed.

Relation to Other Programs

It must be recognized that the so-called direct-Federal construction program of post-war works, set forth in this table, is only one segment of the post-war public construction and improvement program. Another important segment consists of works to be undertaken by State and local governments, aided to some extent by Federal grants and loans. A third segment in which the Federal Government has an interest consists of private construction aided by Federal loans or loan guaranties. An over-all Federal post-war construction program, balanced as to function, would contain these three segments, each of which might place emphasis upon certain particular functions. Hence, the direct-Federal program presented in this table is not necessarily balanced as to function or area. For instance, housing is not represented as a major functional group in the table, but it is easily apparent that housing will be a major activity in the over-all Federal program.

[2] This estimate includes, of course, expenditures necessary to complete those projects that are now, or have been, under construction.

The direct-Federal program as presented here consists of the proposals of the various Federal agencies as submitted to the National Resources Planning Board. All of the proposals are not of equal merit, nor are they necessarily coordinated with one another. Furthermore, there may be actual conflicts or overlapping between the various proposals. A great deal of correlation of projects and programs is still necessary, both by the agencies themselves and by the National Resources Planning Board, before a well-rounded construction program can be prepared. Correlation of projects and programs is now being undertaken by the National Resources Planning Board through its Project Review Section and Committee and related policy matters are being considered by its technical committees on Land, Water, Energy, and Transportation. In addition, project correlation and program revision are constantly under way in the various Federal construction agencies. The results of these various kinds of coordination are already apparent in the improved programs being submitted by the Federal agencies. Further improvement is expected to result as the post-war program is given further study.

B. The Program in Detail

The composition of the post-war program from the standpoint of function and agency programs is taken up in the following discussion.[3]

Land Development and Protection

Flood control.—The projects included in this category consist largely of proposals of the Corps of Engineers, including those already authorized in the various Flood Control Acts and those projects definitely proposed by the Corps of Engineers but not yet authorized, as well as those projects now under survey. A number of the authorized projects are planned to provide flood control or power for critical war areas, and are therefore now under construction. Only the cost of those portions of such projects which remain to be completed after fiscal year 1944 is included in this table. For these projects now under construction, and for other authorized projects not now under way, plans are now in process of preparation. The Corps of Engineers received a special appropriation of $2,000,000 in the fiscal year 1943, to enable the preparation of plans for authorized projects. If additional funds are appropriated for fiscal year 1944, a large portion of the authorized flood-control program of the Corps of Engineers will have detailed construction plans in readiness for the post-war period. The major exception is a group of inactive projects, totalling about $50,000,000, and consisting of authorized projects which are held up due to

[3] This entire discussion should be read with appropriate reference to the table at the end of the section.

lack of local financial participation or some other similar deficiency.

In the group of unauthorized projects are included (1) the unauthorized portions of projects and drainage-basin plans now being carried out, and (2) projects for which favorable survey reports have been completed. No detailed plans and specifications for these projects will be prepared until the projects are authorized.

The projects involved in flood-control surveys now under way or authorized represent the most indefinite portion of the Corps of Engineers program. Such projects must first be recommended by the Chief of Engineers in a survey report to Congress, and must then be authorized by the Congress before they are eligible for planning or construction appropriations.

Under the flood-control classification are also included projects proposed by the Tennessee Valley Authority, Department of Agriculture, and International Boundary Commission, United States and Mexico. The projects reported by the Tennessee Valley Authority involve protection of areas along the Tennessee River and tributaries. Some of these projects are tentative only and none are as yet authorized. The flood-control projects of the Department of Agriculture are those involving a program of water-flow retardation and soil-erosion prevention in the interest of flood control. The major portion of the program is still in the survey stage and is unauthorized insofar as flood-control appropriations are concerned. The International Boundary Commission proposes a series of projects for protection of areas along the Rio Grande and other rivers along the Mexican Border.

In general, the projects in this classification have been correlated, and their relationships to local, State, and regional plans have been determined. Also, a relative order of desirability of construction, based primarily upon such relationships, has been worked out. Therefore, the authorized projects in this group are, in most cases, available for construction and require only the continuation of plan preparation to prepare them for inclusion in the post-war program of projects for immediate construction.

Irrigation.—This group consists of a large program of irrigation and reclamation projects reported by the Bureau of Reclamation, and a much smaller program of the Office of Indian Affairs. The Bureau of Reclamation program involves construction of dams, power plants, pumping plants, canals, and water-distributing systems on irrigation projects in the 17 Western States.

The entire group of "regular" reclamation projects which are either under construction or definitely proposed are either authorized or require only authorization by the Secretary of the Interior and the President. No further congressional authorization is therefore necessary for the great bulk of reclamation projects; hence, detailed plans could be prepared as funds are made available, and the projects could be made available for immediate post-war construction, if conditions should so warrant.

A much smaller program of the Bureau of Reclamation is the water conservation and utilization program for small irrigation works not eligible for construction under the regular reclamation program. Most of the projects in this $55,000,000 program are still in the survey stage and are therefore not immediately available for construction. The Bureau of Reclamation, however, is actively prosecuting its entire survey program of over 250 investigations, including the smaller irrigation works, and indications are that within the next year a large number of additional projects will be definitely proposed for post-war construction.

The projects of the Office of Indian Affairs consist of irrigation works on many Indian reservations throughout the West. Although generally of much smaller size than the larger reclamation projects, they represent an important item in the program of increasing the living standards for our native Indians.

Because the water and land problems of our Western States are so complex, and because so many public agencies exercise jurisdiction in the area, much remains to be done to bring into complete agreement all of the plans and proposals for the region. Therefore only a portion of the irrigation segment of the post-war program can now be considered available for immediate post-war construction.

The multipurpose nature of reclamation projects is another reason for the complexity of the improvement program for the West. Although their primary purpose is irrigation, many projects have important power, flood-control, recreation, and water-supply features. Because of their primary purpose, however, they have all been placed in the irrigation category. A similar policy is followed for all multipurpose projects included in the table of post-war Federal construction.

Forest development.—This category includes, for the most part, projects of the United States Forest Service for protection, conservation, and development of our national forests. Included are works for fire control, management of timber, range, watersheds and wildlife, recreation, erosion control, forest community development, multiple-purpose management, administrative site improvements, communications systems, experiment stations, and general administrative projects, as well as projects for development of roads and trails.

The program of forest highways construction is not included in this group, but is reported under "Transportation." Nonstructural improvements in national forests are also not included, inasmuch as no reports have as yet been received on this program.

The greater portion of the structural improvement program consists of small projects costing less than $7,500, and requiring only standard plans for construction. No specific authorization is required; hence, most of these projects would be available as needed in the post-war period.

Although the future program for forest roads and trails totals about $140,000,000, authorizations are at present limited to less than $3,500,000. This program can be undertaken only as future authorizations will allow. If necessary, however, authorizations could be greatly increased over past amounts, in order to make use of a type of project well suited to a works program.

Park development.—The projects included in this group consist largely of the proposals of the National Park Service. These involve improvements to national parks, monuments, historic sites, and recreational demonstration areas. Parkways, for the purposes of this classification, are considered transportation projects and are therefore classed in the "Transportation" group.

Important types of construction are buildings and utilities, roads and trails, and restoration and development of national historic sites and monuments. Only projects involving structural improvements and costing more than $2,500 are included.

The National Park Service prepares general improvement plans for each of its park areas, and determines the relationship of structural improvements to these general plans. Much of the basic over-all planning has already been done for the $55,000,000 park-development program. Also, detailed individual plans are not as important for park structures as for other types of buildings, as standard plans can often be used with but minor modifications to suit the particular site. For these reasons, and because the park improvements are all authorized, a park-development program can easily be prepared for immediate undertaking after the war, if necessary.

Park projects require correlation with the programs and projects of other agencies. A start has been made by the National Resources Planning Board in its study of certain park projects; much more, however, must be done before complete coordination of programs is achieved.

Range land development.—The principal future program for development of the western range is reported by the Grazing Service of the Department of the Interior. The program includes both structural and nonstructural improvements for fire control, ground and surface water supply, fence, building, and trail and bridge construction, soil and moisture conservation, reseeding, and rodent control, in the 57 grazing districts.

Although the program is relatively large—over $128,000,000—only a comparatively small amount of funds has been expended on the program in the past. Because the individual projects are small, however, and are scattered throughout the Western States, the program may be especially valuable in providing work for small groups of workers, probably in conjunction with work camps of some sort. The projects require very little detailed planning, because only simple structures are involved, and the nonstructural work can be planned on an area basis.

Progress has been made in correlating the program of the Grazing Service with range and watershed programs of other agencies, but much more work must still be done, due to the intimate relationship between land and water development in the arid Western States. The Grazing Service program, however, will be in a good position to go forward after the war, if present efforts toward coordination of programs are continued.

Wildlife development.—This group includes, for the most part, the future program of the Fish and Wildlife Service, for the development of our fish and game resources. The program includes the development of new fish cultural stations as well as the rehabilitation of old stations, and the expansion of existing stations where present facilities are inadequate for full development. Also included are projects for the development and improvement of big-game preserves and migratory bird and wildlife refuges, as well as the conservation of Alaska fisheries and seal population.

The program is closely associated with programs of other Federal agencies for park, forest, range and agricultural development, and requires close coordination with these activities. This is true to an even greater extent when the nonstructural program of the Fish and Wildlife Service is considered. The table includes only the structural portion of the wildlife program, but the two portions—structural and nonstructural—are essentially segments of one larger program.

Although the program is not large in volume, it is nonetheless important from the point of view of national development. With a reasonable amount of plan preparation, the program can be made ready for early undertaking in the after-war period, if it should prove necessary to do so.

Soil conservation.—This group includes the structural improvement program of the Soil Conservation Service and construction associated with the fertilizer program of the Tennessee Valley Authority. The structural improvement program of the Soil Conservation Service consists of administrative and service facilities necessary for the operation of soil and moisture conservation programs throughout the country, as well as physical improvements on a land-retirement project. These

projects for structural improvements are closely related to the larger program of nonstructural land improvement projects which the Soil Conservation Service has operated in the past in cooperation with State and local governments and private landowners. The Department of Agriculture has not yet submitted its over-all soil-conservation program of structural and nonstructural projects, although a portion of the program more directly associated with flood control has been reported and is included in the "Flood control" group discussed above.

The fertilizer program of the Tennessee Valley Authority includes the construction of a fertilizer plant in the Tennessee Valley region.

Promotion of Transportation

Rivers and harbors.—In this group are included the large rivers and harbors program of the Corps of Engineers and a small program submitted by the Tennessee Valley Authority for development of barge terminals along the Tennessee River.

The Corps of Engineers program for rivers and harbors consists of three major sections, as follows:

1. Authorized projects.
2. Projects recommended but not authorized.
3. Projects under survey.

The first group, totaling approximately $220,000,000, includes projects authorized but not yet started as well as the uncompleted (after fiscal year 1944) portions of projects now under construction. The major portion of these projects are in good position to be started after the war, inasmuch as they are all authorized and plans are available for many of them. Approximately $65,000,000 of these projects, however, are on the "inactive" list, either because local financial participation is lacking or because special conditions have arisen which suggest modifications, deferral, or even abandonment of the projects.

In the second group are included a large number of projects upon which favorable surveys have been submitted to Congress by the Corps of Engineers. This group totals about $675,000,000 in volume, and represents an accumulation of recommendations over the past 3 years. All of these projects will require congressional authorization before they are eligible to receive funds for detailed plans and construction. Most of these projects have been correlated by the National Resources Planning Board with proposals of other agencies and with local, State, and regional plans.

The third group is the most indefinite segment of the Corps of Engineers rivers and harbors program. Only a rough estimate can be made of the volume of projects which will be favorably recommended as a result of surveys not yet completed. Projects involved in these surveys must first be recommended by the Chief of Engineers in a survey report to Congress, and then must be specifically authorized by the Congress before any planning or construction appropriations can be had. These projects, therefore, will not be immediately available after the war unless the surveys are completed, the authorizations made, and detailed plans prepared before that time.

As indicated above, the major portion of the rivers and harbors program has been studied by the National Resources Planning Board, and a great deal has already been done toward coordinating the individual projects with other agency programs. Some of the larger developments, however, are multipurpose in nature, involving hydroelectric power, recreation, wildlife development, and the like, and are being studied in greater detail. A sufficient volume of correlated projects exists, however, to enable the initiation of a sizeable program of rivers and harbors works whenever the need is demonstrated.

Aids and assistance to navigation.—The projects in this group consist largely of those reported by the United States Coast Guard for construction of new, and rebuilding of existing, lifeboat stations, light stations, and shore facilities for use of the Coast Guard. Also included are modernizations, additions, and improvements to existing lifeboat stations, light stations, and shore facilities. These projects are located largely along the Atlantic, Pacific, and Gulf coasts and on the shores of the Great Lakes in the continental United States, as well as in Alaska and other Territories. The bulk of them range from $25,000 to several million dollars in cost.

Although all of these projects are authorized for construction, their readiness for post-war undertaking depends largely upon the extent to which detailed construction plans are prepared. Many of the projects were scheduled for construction during 1942, but have been deferred because of the war. Plans will have been prepared for most of these. Others, which had been scheduled for later years, will require detailed plans before they are ready for construction. It appears likely, however, that sufficient advance plans will be available to allow a sizeable program of aids to navigation to be undertaken immediately after the war.

Airports and airways.—The airway and airport-improvement program of the Civil Aeronautics Administration is included in this group. Of the approximately $345,000,000 proposed, the major portion—over $310,000,000—is for the completion (after fiscal year 1944) of the Nation-wide airport and landing area development program prepared as a result of the 1939 Nation-wide airport survey. Although some 3,900 airports were recommended in this survey, over 550 of these were already built or building by June 30, 1942, and an estimated 228 additional airports will have been

started by June 30, 1944. Thus, approximately 3,100 airports remain from the original program, although it is possible that this number may be increased somewhat by the addition of airports whose construction may be deferred.

None of the airports in this large future program are now authorized for construction and, accordingly, no specific sites have been selected nor have any of the airports been planned in detail. Although site selection requires careful over-all planning for the region involved, the actual detailed planning of these projects is not too difficult or complicated an operation, because no structures are involved in the work covered in this program. The volume of over $310,000,000 includes only the draining, grading, paving, and other work necessary to construct the actual fields, and does not include hangars, administration buildings, or any other structures usually associated with an airport. An additional large amount of construction is therefore associated with this program, but because such work will be the responsibility of local interests, it is not possible to estimate the total volume of such induced construction.

The smaller portion of this group covers the construction necessary to service the Federal airways throughout the country. This $33,000,000 program includes erection of ultra-high-frequency radio ranges, equipment of airway traffic control systems, enlargement, relocation, and improvement of existing landing fields, and provision of other airway facilities. These improvements are all authorized and in many cases plans have already been prepared for their installation.

Post-war planning for air transportation will be a major activity, not only for the Federal agencies involved but also for local governments which must fit the air-transportation plans into their community, State, and regional plans. The Civil Aeronautics Administration has directed its air transportation planning more toward the larger field of national development, and has not itself prepared, except for its special wartime programs, detailed airport plans for communities or metropolitan regions. This more detailed type of local airport planning must be done by urban and State agencies within the broad framework of the national plan. A great deal of correlation of airport plans and proposals is therefore necessary, before the airport program as a whole can be considered ready for construction after the war.

Roads.—Most of the work in this group consists of the national forest highway development program of the United States Forest Service, and the parkway projects of the National Park Service. The remainder covers the highway programs of the Alaska Road Commission and the District of Columbia.

The bulk of the Forest Service highway program of $470,000,000 is as yet unauthorized, and will be ready for construction only as authorizations are forthcoming in future Federal highway acts. The $50,000,000 future program of parkways reported by the National Park Service is all authorized and ready for construction.

Alaska Road Commission projects consist for the most part of extensions and additions to the present Alaska highway system. This rather modest program of approximately $10,000,000 will no doubt be increased after the war due to the stimulation to highway traffic resulting from construction of the Alcan Highway from Dawson Creek, British Columbia, to Fairbanks, Alaska.

Preparation of the over-all highway program for the entire United States is under jurisdiction of the Public Roads Administration, which administers the Federal-aid highway program and correlates its programs with those of the Forest Service and National Park Service. As the construction of this over-all highway program is the function of the States rather than the Federal Government, it is not included in this section.

Railroads.—This group consists of a small program of projects reported by the Alaska Railroad for improvement and minor extensions to the Alaska Railroad System under the jurisdiction of the Department of the Interior.

Power Generation and Distribution

Included in this group are the projects of the Federal Power Commission, Tennessee Valley Authority, and Bonneville Power Administration for the generation, transmission, and distribution of electric energy. Only projects proposed primarily for power are included in this group, inasmuch as multipurpose projects of the Bureau of Reclamation and Corps of Engineers have been classified according to their dominant purpose and are therefore included in the irrigation, flood-control, or rivers and harbors groups.

The projects of the Federal Power Commission aggregating about $600,000,000 consist of hydroelectric power facilities and transmission lines definitely proposed by the Commission, as well as similar projects under survey but not yet definitely proposed. None of the projects proposed by the Federal Power Commission and included in this group have been authorized as yet. In fact, the Power Commission does not currently do any direct construction of power projects or transmission lines, but does recommend such projects for construction by other Federal agencies. In the case of hydroelectric power projects where the Federal interest is involved, the Commission also licenses such projects of private and State and local public agencies.

Before the Federal Power Commission program can be carried into effect, therefore, the projects must be authorized by Congress for construction by some Federal construction agency, or licensed for construction

by some non-Federal agency. The projects will also require correlation with the proposals of other Federal agencies and with local, State, and regional plans. A certain amount of this correlation has already been done by the Energy and Water Resources Sections of the National Resources Planning Board. The correlation work will be continued through the newly formed Project Review Section of the Board.

Projects in the Tennessee Valley Authority program are for continuation of development of the unified river system in the Tennessee Valley, for the joint purposes of power production, flood control, and navigation. Included are hydroelectric power developments and transmission facilities, totaling approximately $180,000,000. In addition to this future program, much of which is tentative, the Tennessee Valley Authority is carrying out a large expansion program to provide power for the war industries in the region.

The Bonneville Power Administration program consists of enlargements and extensions to its network of power transmission and distribution lines in the Pacific Northwest. The transmission system distributes electric energy generated at Grand Coulee and Bonneville Dams. Future power installations at Grand Coulee Dam are included under the Bureau of Reclamation Program reported under "Irrigation" above.

The long-term program of the Bonneville Power Administration has been modified and accelerated due to war needs for power in the Pacific Northwest. As a result, the program has been speeded up and work which was first programmed for later years has already been done. There still remains, however, a volume of over $120,000,000 of projects available for construction after fiscal year 1944. Should additional transmission-line construction be required after the war, the projects will be available for early construction by the Bonneville Power Administration.

Education

Projects included in this group, aggregating over $18,000,000, cover the construction of buildings and improvements for Howard University, and educational and library buildings in the District of Columbia. Construction of educational facilities by the Office of Indian Affairs is included in the "Welfare" classification with the remainder of the general building construction program of the Office of Indian Affairs.

Until the coming of the war emergency, Federal participation in construction of educational facilities has been carried on almost entirely through loans and grants to State and local governments by the Public Works Administration, Work Projects Administration, and other Federal construction agencies (Class II). Under Title II of the Lanham Act the Federal Government has been participating in construction of educational facilities in critical war areas through loans, grants, and direct construction. It is not likely, however, that direct construction of school facilities will continue after the war, although a renewal of a program of loans and grants is possible.

Welfare and Health

Welfare.—The major share of projects in this group are those reported by the Office of Indian Affairs for construction work on Indian reservations, mostly in the area west of the Mississippi River. Of the $98,000,000 program of the Office of Indian Affairs, approximately two-thirds covers construction of roads and trails on Indian reservations, while the remainder covers construction of educational, health, welfare, and general administrative facilities. Irrigation projects of the Office are not included in this group, but are discussed under "Irrigation" above. However, all other Indian Affairs projects have been included in this "Welfare" grouping because the welfare of the Indians is the dominant purpose involved.

Most of the Indian road and trail program is unauthorized, but sufficient authorizations are available to undertake a sizable road program after the war. The building projects are, on the whole, authorized; furthermore many of them can be built with standard plans. Thus, these projects could also be started soon after funds are appropriated.

The welfare grouping also includes small programs for improvements at the Columbia Institution for the Deaf and for welfare facilities in the District of Columbia.

Health.—Projects in this group include those of the Veterans' Administration, St. Elizabeths Hospital, District of Columbia Health Department, and the Public Buildings Administration.

Those proposed by the Veterans' Administration are for the provision of additional beds at existing institutions, major reconditioning, remodeling, and repairs at such institutions, and provision of entirely new facilities. The entire program exceeds $25,000,000 at this time, but additional units are now in the discussion stage, as it seems likely that the existing veterans' hospital system will have to be expanded after the war. No estimates are yet available as to the possible size of this additional expansion program.

The Public Buildings Administration is the construction agency which has jurisdiction over construction of hospitals and quarantine stations operated by the United States Public Health Service. A future program in excess of $9,000,000 for such facilities has been submitted by the Public Buildings Administration. It is likely, however, that the major share of hospital construction, with the exception of veterans' facilities, will continue to be built by State and local agencies, possibly with Federal assistance in the form of loans or grants. Such

programs of Federal assistance would be reported as proposals of Federal construction agencies (Class II) and would not be treated in this section.

Projects in this group require detailed plans before construction can begin. Attention might be given, therefore, to the early provision of funds to enable the advance preparation of detailed plans for those authorized projects which are likely to be needed first after the war.

Prisons.—In this group are included those projects reported by the Bureau of Prisons for additions and alterations to existing Federal penal and correctional institutions, and construction of new institutions. Of the $30,000,000 total, new construction accounts for over $22,000,000.

This group of projects is another example of a kind of construction undertaking for which advance plans can be prepared. Detailed plans are required before any of the new institutions can be started. Therefore, if the most necessary of these projects are to be ready for early construction after the war, funds should be alloted now for the preparation of detailed plans and specifications.

Water Supply and Sanitation

Included in this $24,000,000 group of projects are those for provision of water distribution and sanitary facilities for the District of Columbia, including the project for maintenance and repair of the Washington Aqueduct, which is under jurisdiction of the Corps of Engineers. Inasmuch as these are all more or less continuing projects, plans can easily be prepared to make the most important projects available for immediate undertaking after the war.

Government Administration

Office buildings.—The bulk of this group consists of projects for the construction of permanent Federal office buildings in the District of Columbia by the Public Buildings Administration. Office buildings are also proposed by the Tennessee Valley Authority, Bonneville Power Administration, and the Department of Agriculture to house their employees outside of the District of Columbia, and by the Foreign Service Buildings Office in the Department of State to house our various diplomatic representatives in foreign countries.

The war forced the stoppage of practically all permanent office building construction in the District of Columbia by the Public Buildings Administration. The normal building program will undoubtedly be resumed after the war, as shortages of permanent office space develop. In order to allow immediate resumption of the program, detailed plans will have to be prepared for the projects with first priorities.

Post offices and courthouses.—Included in this program are projects for construction of post offices and courthouses outside of the District of Columbia, as proposed by the Public Buildings Administration. Of the total volume of almost $170,000,000, over $130,000,000 represents unauthorized projects. The authorized program totals $37,500,000 and is equivalent to less than one year of work by the Public Buildings Administration at the past rate of expenditures.

Facilities for law enforcement.—This group is made up

Federal program of post-war construction and improvement works, Federal construction agencies (Class I), Jan. 1, 1943

Purpose classification	Estimated cost authorized projects or those requiring only Presidential authorization to undertake [1]	Estimated cost of projects requiring future congressional authorization	Tentative estimated cost of projects involved in surveys now under way or authorized	Total estimated cost of all projects
LAND DEVELOPMENT AND PROTECTION				
Flood control	$666,820,283	$832,216,379	$500,000,000	$1,999,036,662
Irrigation and reclamation	1,087,535,182		500,000,000	1,587,535,182
Forest development	73,702,420	152,537,493		226,239,913
Park development	55,852,111			55,852,111
Range land development	128,419,807			128,419,807
Wildlife development	9,405,250			9,405,250
Soil conservation	6,308,249	131,000		6,439,249
Total, land development and protection	2,028,043,302	984,884,872	1,000,000,000	4,012,928,174
PROMOTION OF TRANSPORTATION				
Rivers and harbors	221,949,340	675,519,346	150,000,000	1,047,468,686
Aids and assistance to navigation	44,247,147			44,247,147
Airports and airways	33,422,000	311,717,812		345,139,812
Roads	82,771,895	472,139,733		554,911,628
Railroads	648,167			648,167
Total, promotion of transportation	383,038,549	1,459,376,891	150,000,000	1,992,415,440
POWER GENERATION AND DISTRIBUTION [2]				
Dams and power plants	106,402,000	605,311,000	200,000,000	911,713,000
Transmission lines	128,297,000	66,460,000		194,757,000
Total, power generation and distribution	234,699,000	671,771,000	200,000,000	1,106,470,000
EDUCATION				
Total, education	4,931,804	13,638,362		18,470,166
WELFARE AND HEALTH				
Welfare	38,579,401	62,424,000		101,003,401
Health	25,382,500	15,820,970		41,203,470
Penal and correctional	30,100,260			30,100,260
Total, welfare and health	94,062,161	78,244,970		172,307,131
SANITATION AND WATER SUPPLY				
Total, sanitation and water supply	14,443,400	10,068,916		24,512,315
GOVERNMENT ADMINISTRATION				
Office buildings	156,690,000	7,265,000		163,955,000
Post offices and courthouses	37,500,000	131,948,000		169,448,000
Facilities for law enforcement	1,086,000	13,041,000		14,127,000
Research facilities	12,167,700	8,568,280		20,735,980
Total, Government administration	207,443,700	160,822,280		368,265,980
Total, all purposes	2,966,661,916	3,378,707,290	1,350,000,000	7,695,369,206

[1] Includes additional cost required after fiscal year 1944 to complete projects for which expenditures will be made in fiscal year 1944; also new projects available for construction; also includes cost to complete projects partly constructed but now deferred because of the war.

[2] This estimate excludes hydroelectric power projects included in other purpose classifications.

largely of the proposed program of the Immigration and Naturalization Service for construction of border-patrol stations and other facilities necessary for law enforcement. Also included is a program of fence construction along the United States-Mexican border, proposed by the International Boundary Commission, United States and Mexico, as well as a small building program of the Public Buildings Administration.

Research facilities.—This $20,000,000 program includes proposals for future construction by the National Advisory Committee for Aeronautics, the National Bureau of Standards, Bureau of Mines, United States Geological Survey, Coast and Geodetic Survey, and the various research bureaus of the Department of Agriculture. Although these projects do not represent a large construction program, they are nonetheless necessary for the continuation and expansion of the research programs of the Federal agencies which are in turn vital to our national development. In most cases, detailed plans must be prepared in advance before these projects will be ready for undertaking in the post-war period.

2. Federal Construction Agencies (Class II)

The provisions of Executive Order No. 8455 define a Federal construction agency (Class II) as one which aids "construction activity through grants-in-aid, loans, or other forms of financial assistance or through guaranties from the Federal Government." Generally, these agencies are referred to as the "Federal aid" or "Federal indirect" construction agencies, in contrast to the so-called "Federal direct" construction agencies or the "construction agencies (Class I)" as they are defined by the order. Before the war, between 75 and 80 percent of the construction undertaken or financed by the Federal Government was under the auspices of these Federal-aid agencies. Obviously then, full programming control of Federal construction activities cannot be complete until these agencies are brought into the procedures established by Executive Order No. 8455.

Procedures for programming by the construction agencies (Class I) were established in detail upon the issuance of Regulation No. 1 under Executive Order No. 8455 in July 1940. After more than a year of experience with operating the procedures under that regulation, studies were begun by the Board in the summer of 1941 directed toward devising the programming procedures for the construction agencies (Class II). From these studies a tentative procedure (later to be designated as Regulation No. 2 under the Executive order) was evolved and discussions were then begun with the agencies concerned covering the administrative problems that would be raised in their own operations in order for them to comply with the procedure.[1] These discussions continued throughout the late fall and winter of 1941 and early into the spring of 1942.

As a result of these conferences with the construction agencies (Class II) a final draft of the proposed Regulation No. 2 was developed early in the summer of 1942. Upon the basis of this final draft, the agencies concerned were then again consulted as to the manner in which they would organize their administrative operations in order to comply with the planning and programming procedure to be established.

Subsequently, these last consultations were completed and Regulation No. 2 was approved and issued jointly by the Director of the Budget and the Chairman of the Board on December 11, 1942. It is understood, however, that before each Federal construction agency (Class II) concerned begins its operations under the new regulation, representatives of the Bureau and the Board will again review the reporting procedures established for each such agency in order to assure that the administrative procedures involved for such an agency are the most efficient that can be used.

One of the provisions of the proposed Regulation No. 2 requires that the construction agencies (Class II) must demonstrate to the Board that any assistance they may provide for construction activity shall be extended only to those construction projects that are part of an advance plan and program of a public or private agency of competent jurisdiction. This means, of course, that insofar as State or local government agencies are concerned, advance planning and programming will be required to cover at least those projects for which Federal assistance may be sought for their construction. To aid State and local governments in preparing such advance plans and programs, the Board has been extending consulting assistance to as many interested States and cities as possible. An earlier section of this report details the manner in which such assistance has been provided for planning purposes, while the next section sets forth the work that has been done in encouraging and aiding State and local public works programming.

3. Programming of Local Public Construction

Early in the defense program it was recognized that State and local governments would, of necessity, have to prepare programs of public works for use after the emergency. To aid the local governments in the preparation of sound programs, the Public Work Reserve was established in June 1941, as a Work Projects Administration project, jointly sponsored by the Federal Works Agency and the National Resources Planning Board. The chief objectives of the Public Work Reserve were

[1] A detailed statement of the tentative programming procedure so evolved is contained in *National Resources Development Report for 1942*, p. 51.

(1) to accumulate an immediate listing of needed construction and nonconstruction projects from State and local governments, and (2) to assist State and local governments in the preparation of long-range public improvement programs based on community plans. The purpose in this operation was to complete the preliminaries for a broad program of State and local public works that might be prosecuted throughout the country when peace had again been achieved.

The Public Work Reserve was organized in the summer of 1941 on a Nation-wide basis with a national director and four regional field representatives, each in charge of a specific region. Each region was organized generally, into State units with State directors in charge of individual staffs through which operations were carried on. Technical assistance on the preparation of public improvement programs was afforded the Public Work Reserve staff by programming experts of the National Resources Planning Board.

In the initial stages of the work, the Public Work Reserve staff, quite naturally, placed primary emphasis on the listing of proposed projects, as a necessary first step toward programming. As the work progressed, however, it was possible to devote more time to preparation of specific programs, in cooperation with the States and municipalities. Because the programming operation is necessarily a time-consuming one, progress on this phase of the activities of the Public Work Reserve was slow, and emphasis continued to be placed by the staff on the listing of projects.

Another difficulty which arose in the operation of the Public Work Reserve concerned the collection of programs of public services as distinct from public construction. It had been recognized at the outset that construction proposals should be planned in relation to public services such as health, welfare, and recreation. There was no experience to draw upon for the programming of services, comparable to that developed for construction projects, either in the local governments or the Federal agencies themselves. Progress, therefore, was slow in this field, and the development of a proper programming technique was not completed during the lifetime of the Public Work Reserve.

The Public Work Reserve was abolished in April 1942 and its functions assumed by the Local Public Works Programming Office, supported jointly by the Federal Works Agency and the National Resources Planning Board. This successor organization had as its objectives the aiding of State and local governments in the preparation of planned programs of public works, and the accumulation of information regarding advance plans and programs of such works. Emphasis was directed toward the preparation of programs rather than the accumulation of project lists. Two earlier experiences of the National Resources Planning Board in assembling "lists" of State and local public works proposals had clearly demonstrated the undependability of such data when not related to local financial capacity.

The Local Public Works Programming Office immediately took over the personnel of the Public Work Reserve and undertook to carry on the altered objective. It supplied technical and other assistance to State and local governments in the preparation and formulation of individual long-range programs of public works. The aid was merely as to methods and procedure. The decisions as to character and volume of public improvements were locally determined.

Unfortunately, the necessary funds were not available to continue the operation, and the organization passed out of existence on July 22, 1942. The stoppage of the office placed a heavy burden on the very limited field staff of the National Resources Planning Board. It was almost immediately apparent that assistance toward the successful conclusion of those programming operations that were approaching completion was the most that the Board could provide. This assistance was given so that the maximum amount of value could be salvaged from the discontinued Nation-wide effort.

Legislation Needed

An operation such as the Public Work Reserve was obviously an interim measure which it was desirable to undertake pending adoption by the Congress of a more comprehensive policy of aid to local planning. The listing of non-Federal projects is clearly not enough, nor is even the formulation of sound programs sufficient to insure that a non-Federal construction program would be ready for undertaking after the war. Programs need to be implemented by detailed project plans and specifications. To insure that all of these necessary steps are taken, an over-all program of Federal assistance, such as that proposed in Senate bill 1617, is necessary.

The high level of war-production activity is exerting great pressure on the capacity of State and local governments to provide additional plant and to maintain that which already exists. Scarcities of labor and building materials, however, preclude all construction except that which is indispensable to the war; even regular maintenance work must be drastically reduced. These deferrals of public-works provisions will accumulate during the war and will represent large demands on local government finances when the war is over. The mounting total of deferred maintenance alone will require the expenditure of great sums of money when manpower and materials are once more available. Unless some provision is made now to meet this certain demand, serious financial repercussions may confront many of our State and local governments.

Largely due to the impact of the war economy many of the States and certain of the cities find themselves with substantial surpluses and their net revenue still showing an upward trend. Among the contributing reasons are the inability to continue normal maintenance and construction and falling relief expenditures. However, the first apparent saving is unreal. Capital consumption and enforced undermaintenance may well greatly increase ultimate costs. Under these circumstances it seems wise to accumulate reserves of cash and credit to provide the means to finance the growing backlog of demand for public works.

Unfortunately only a few of the States permit their political subdivisions to create and maintain reserves for any purpose. It is highly desirable therefore that the States enact legislation setting up post-war reserve funds for themselves and permitting their subdivisions to follow the lead. There is an encouraging movement toward appropriate favorable action in many sections of the Nation and field experiences lead to the belief that a number of State legislatures will consider such legislation when they convene in January. Not the least benefit that will result from permitting and creating reserves will be the reinforcement of the Federal effort against inflation. With the existence of public reserves on a large scale—particularly if the funds are invested in Federal securities—there will be much excess purchasing power withdrawn from circulation and from competition for the dwindling total of available consumer goods. Furthermore there is the added assistance in financing the war.

Already there is a strongly discernible trend on the part of many cities toward accumulating reserves, where they are not specifically prohibited by existing law. Quite naturally, many of these cities are those which had difficult situations to face in the early twenties and thirties. They still have vivid recollections of low tax rates when times were good, and the virtual impossibility of raising them when there was need for more revenue. They know that time will demonstrate the wisdom of the advance provision of reserves while tax yields are good.

The Record of Accomplishment

Except for the period of somewhat less than a year when the Public Work Reserve and the local public works programming office were in effective existence with their relatively large field forces, the greater part of the burden of bringing "programming" to State and local governments has been carried by the National Resources Planning Board. Planned procedures of budgeting capital improvements on a carefully worked out schedule have become a fact in 7 States and about 60 cities and counties. To these figures will be added at least 3 more States and from 10 to 20 cities within the next month or two. The cities vary in size from quite small to some of the largest in the country. They are spotted geographically from Maine to California. It is believed that this widespread inauguration of programming will lead many communities to imitate their neighbors and thus reach sections which the size of the Board's staff now effectually prevents.

Tabulated below are the States, cities, and counties which have completed preparation and formulation of long-range programs of public works.

STATES

State of Maryland [1]
State of New Hampshire [1]
State of New York [2]
State of Nevada [1]
State of Idaho
State of Oregon
State of Montana
State of Virginia

COUNTIES

Pulaski County, Ark.
San Mateo County, Calif.
Clay County, Kans.

CITIES

Austin, Tex.
Plainfield, Conn.[1]
Southington, Conn.
Winchester, Mass.[2]
Brookline, Mass.[1]
Needham, Mass.[1]
Lexington, Mass.
Greenfield, Mass.
Keene, N.·H.[1]
Concord, N. H.[1]
Woonsocket, R. I.
Roxboro, N. C.
Henderson, N. C.
New Bern, N. C.
Roanoke Rapids, N. C.
Oxford, N. C.
Asheboro, N. C.
Bessemer, Ala.
Gainesville, Fla.
Albany, Ga.
Macon, Ga.
Moultrie, Ga.
Biloxi, Miss.
Gulfport, Miss.
Laurel, Miss.
Hattiesburg, Miss.
Natchez, Miss.
McComb, Miss.
Greenwood, S. C.
Columbia, S. C.
Nashville, Tenn.
Bristol, Tenn.
Covington, Ky.
Sitka, Alaska
Anchorage, Alaska
Detroit, Mich.[1]
Benton Harbor, Mich.
Kalamazoo, Mich.
Manitowoc, Wis.
Ft. Smith, Ark.
Blytheville, Ark.
Ruston, La.
Gretna, La.
Aubudon Park Com. New Orleans, La.
New Orleans City Park Com., La.
Bogalusa, La.
Jonesboro, La.
El Reno, Okla.
Dallas, Tex.
Atchison, Kans.
Ainsworth, Nebr.
So Sioux City, Nebr.
Alliance, Nebr.
Bismarck, N. Dak.
Fargo, N. Dak.
Minot, N. Dak.
Sacramento, Calif.
Los Angeles, Calif.
Meridian, Idaho.
Spokane, Wash.
New York City, N. Y.
Monroe, Wis.
Auburn, Maine.[1]

[1] Engaged in first annual or biennial revision.
[2] Has completed more than one revision.

The following are now engaged in the preparation of long-range programs of public works.

STATES

State of Alabama	State of Illinois
State of New Mexico	State of Massachusetts
State of Washington	State of Maine
State of Connecticut	State of Vermont
State of California	State of Rhode Island
State of Colorado	State of Wisconsin
State of Arkansas	State of New Hampshire

COUNTIES

Baltimore County, Md.	Santa Clara County, Calif.

CITIES

Portland, Maine	Tacoma, Wash.
Providence, R. I.	Milwaukee, Wis.
Pittsburgh, Pa.	Athens, Ga.
Kansas City, Mo.	Corpus Christi, Tex.
Savannah, Ga.	Wichita Falls, Tex.
Oakland, Calif.	San Antonio, Tex.
Boston, Mass.	Springfield, Mass.
Ft. Worth, Tex.	Decatur, Ill.
Austin, Tex.	Hartford, Conn.
Brunswick, Ga.	Bath, Maine.
Durham, N. C.	New Haven, Conn.
Denver, Colo.	

These tables may omit places where the programming operation is in process or complete but of which this office is not informed.

Interestingly enough there are byproducts of public works programming which alone would justify its introduction to local governments. Examples abound, but a few will illustrate their range. One State has completely overhauled its accounting system because of inadequacies exposed in the financial study which accompanies the institution of programming. A large city is preparing a new charter which will be submitted to the electorate in an effort to improve administrative shortcomings as discovered in its own detailed self-analysis. State planning boards, recognizing the value of programming on the State level are preparing to bring this opportunity to their cities, and are acquiring technical personnel to offer the necessary assistance.

Much of the foregoing has stressed the public administration benefits of programming. Now there is a more urgent reason. All-out war efforts have not only restricted most State and local construction but have also caused vast shifts in manpower to our military and naval forces and to the armament industries. When the reverse movement begins and there is need to resume building our public plant, we will do well to have the job planned and programmed.

Any government with a works program knows what it wants to do and when and how it proposes to accomplish it. The schedule of projects can be speeded up, or slowed down, or rearranged to suit changing circumstances. The character of construction can be so selected as best to meet shifting demands for both jobs and plant. Given a sufficiently large amount of known prospective public construction under program, the national picture becomes itself susceptible to the same tailoring operation of cutting and fitting to suit the demands of the times.

IV. REGIONAL, STATE, AND LOCAL PLANNING

Executive Order No. 8248 (September 9, 1939) makes it a function and duty of the National Resources Planning Board "to act as a clearing house and means of coordination for planning activities, linking together various levels and fields of planning." Below the national level there are three necessary and definitely recognized levels of planning operation—the local, the State, and the regional. Recognizing the importance of planning at the "grass roots" in our democracy, the Board has long encouraged the establishment of planning agencies at each of these levels. It works closely with these planning agencies through its regional offices and seeks to correlate their activities and programs in a Nation-wide framework of resource development. In the following pages, there is presented, as a clearing-house item, a summary of the outstanding trends and major accomplishments of regional, State, and local planning agencies during the past 18 months. The most significant factor in the work of these planning agencies is the important contribution which they have made to the war effort and the advance planning which they are doing for the post-war period.

REGIONAL PLANNING

A. Introduction

Regional planning [1] is of particular importance today because our economic, political, and social activities are undergoing such rapid changes that every means must be used to observe, interpret and adjust ourselves to these changes. A stronger grasp of regional concepts has already pointed out many discrepancies and gaps between the several levels and the many functions of government. It can also help to provide the foundation for better relationships among these groups in the joint enterprise of national development. Planning in regional terms is the logical way in which to solve problems that are regional in scope. Manufacturing, farming, transportation, mining, and trade are only a few of the human activities that are grouped in such patterns.

Since 1935 Regional Planning has grown remarkably; the number of over-all regional planning commissions or councils covering large sections of the country has increased from two to seven. The first two covered only New England and the Pacific Northwest, while the newer commissions add the Southeast, the Midwest, the Missouri Valley, the Mountain States, and the South Central portions of the country. The organization of the Midwest Regional Planning Commission, the newest of the group, was initiated October 5, 1942.

The growth of other regional planning groups has also been rapid. A large number are concerned with particular problems such as water planning, for drainage, power, pollution control, irrigation, or flood control. Others deal with a greater number of problems but cover smaller subregions or areas rather than the large units dealt with by the commissions mentioned above. In this group of subregional commissions, the number has more than doubled. Thirty-four regional planning organizations have been added to the 23 that have been active since 1935.[2] Eight of these have been organized since June 1941.

Accompanying the trend toward more regional planning is the increased concern with over-all problems. Planning that starts with one or two activities within the region progresses so that it deals with other functions as well. This enlarged scope also tends to bring about increased participation by local groups.

While long-term planning on a regional basis is growing rapidly, its nature is constantly being modified by present demands and new needs. This has resulted in a more immediate translation of plans into action, as well as a speed-up in their preparation.

The effect of the war in speeding up the execution of long-range regional plans is very marked. For example, the turbines now being installed in Boulder Dam were, according to estimates still accepted in 1940, to be installed in 1980. The development plan for Boulder Dam had fortunately provided for the use of this additional power, but had not foreseen an expansion of the power market which telescoped nearly half a century of anticipated development into a few years.

The speed with which such grand-scale regional plans, originally designed as long-term developments, have been converted as rapidly as possible to immediate use, is a strong argument for continued thinking in terms of large areas. No longer do people wonder where the vast amounts of TVA power will be used. There is already a demand greater than the supply, and this situation is likely to be permanent. In agriculture, as in power development, the effect of the war has been to speed up long-term trends in nearly every region.

[1] Cf. *Regional Factors in National Planning.* National Resources Committee, December 1935.

[2] The organizations and programs of regional planning agencies are shown in Circular IX issued by the Board in December 1942.

The impact of the war has brought to regional planning an increasing concern for extra-regional factors. All sections of the country are more dependent on what happens outside than ever before. This trend is likely to continue after the war, when national and world factors will continue to bear directly on regional development. A realization of this will have important effects also in the formation of national and international plans.

A notable start already made on international regional cooperation is the North Pacific Planning Project in which the United States and Canada are participating. The Tennessee Valley Authority represents one method of procedure, combining planning with construction and operation of facilities. Other procedures have been tried with the Columbia Basin joint investigation and the Central Valley project. The most rapid growth of regional planning has been in the subregions or areas where one or two pressing problems have clearly shown the necessity for such an organization. Harbor facilities, flood control, drainage power, and water pollution are typical problems being met by these functional authorities.

Increasing attention is being given to regional development as one of the major areas of post-war growth of the American economy. Regional studies made in recent years by regional planning commissions, the Board's regional offices, and other agencies have shown that in many parts of the United States rich resources lie unutilized, while in some of these areas living standards are very low. Many potentialities for regional development exist in the harnessing of river basins for cheap power, flood control, and water to irrigate new lands; industrialization based on cheap power, available raw materials, and improved transportation; settlement and servicing of new or reclaimed agricultural areas and industrial centers; and the raising of living standards. Development of these areas will provide new jobs, new markets, and new investments, both public and private, in the post-war period.

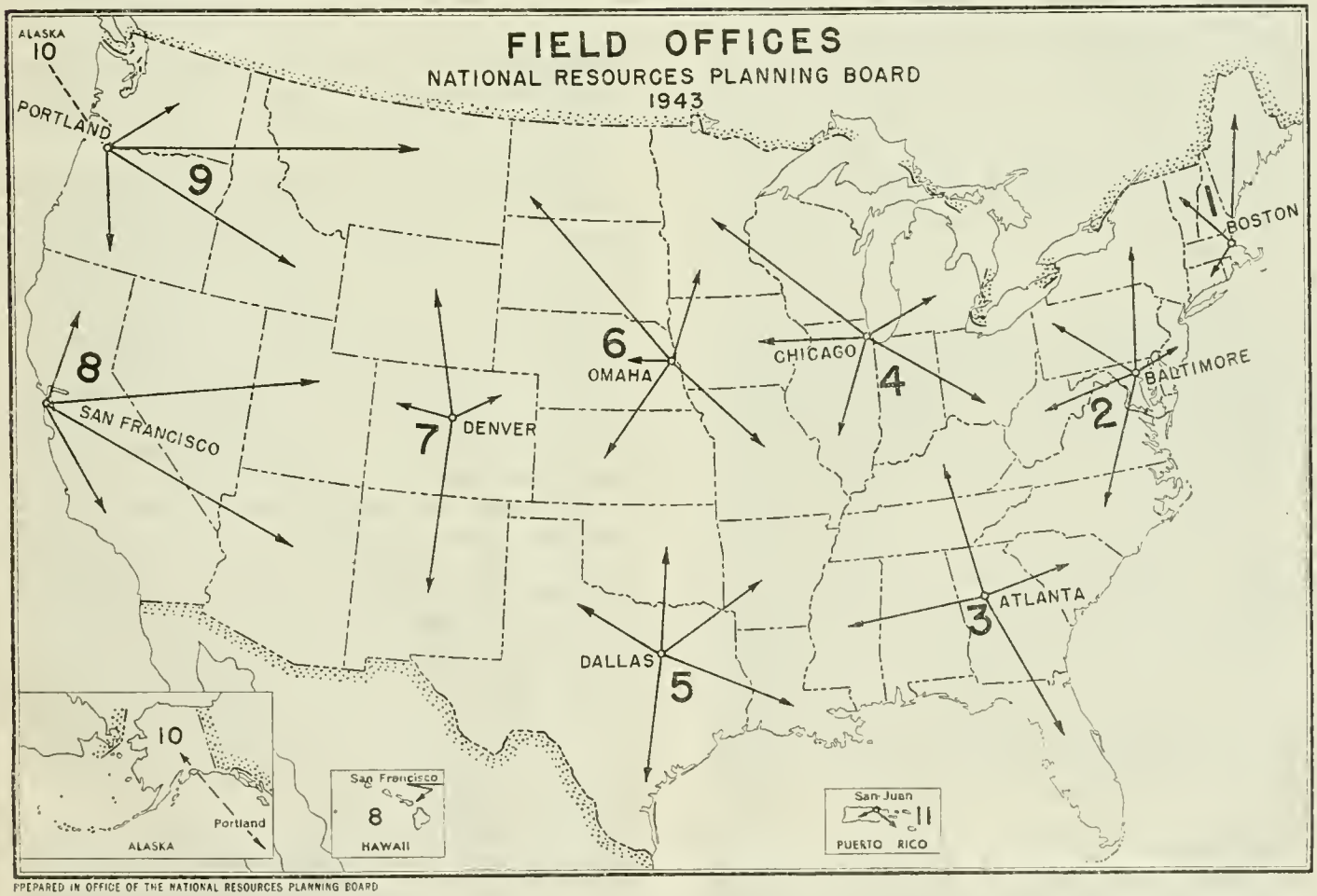

FIGURE 7.

Regional offices—National Resources Planning Board

Region	Officer	Location
No. 1. New England	Victor M. Cutter, chairman	2100 Federal Bldg., Boston, Mass.
No. 2. Middle Atlantic	Morton L. Wallerstein, chairman	350 Post Office Bldg., Baltimore, Md.
No. 3. Southeast	Henry T. McIntosh, chairman; Claud F. Clayton, counselor	520 New Post Office Bldg., Atlanta, Ga.
No. 4. Midwest	Louis Wirth, chairman; Paul Middleton, counselor	528 United States Courthouse, Indianapolis, Ind.
No. 5. Central Southwest	Earl O. Mills, chairman; Edwin Henson, counselor	580 Terminal Annex Bldg., Dallas, Tex.
No. 6. Missouri Valley	Philip H. Elwood, chairman	710 Omaha Loan Bldg., Omaha, Nebr.
No. 7. Mountain States	Clifford H. Stone, chairman; Harlowe M. Stafford, counselor	302 Post Office Bldg., Denver, Colo.
No. 8. Pacific Southwest	Baldwin M. Woods, chairman; V. B. Stanbery, counselor	212 Post Office Bldg., Berkeley, Calif.
No. 9. Pacific Northwest	Benjamin H. Kizer, chairman; Roy F. Bessey, counselor	220 Federal Courthouse, Portland, Oreg.
No. 10. Alaska	James C. Rettie, counselor	706 Federal Courthouse, Portland, Oreg.
No. 11. Puerto Rico, Virgin Islands	Frederic P. Bartlett, manager	211 Federal Bldg., San Juan, P. R.

B. Regional Planning Centers and Projects

The last progress report of the National Resources Planning Board was published in June 1941. This report gave the story of development and activities of regional planning groups since 1935, when the comprehensive report *Regional Factors in National Planning* was published by the National Resources Committee. The 1941 progress report also described the organization and location of the Board's regional offices, which serve as regional planning centers for the planning activities of Federal, State, and local groups.

The National Resources Planning Board, in November 1941, established a new regional office in San Juan, Puerto Rico. The region 10 office at Juneau, Alaska, established June 21, 1941, was transferred to Portland, Oreg., late in the summer of 1942. There have also been several changes made in the areas, which for administrative purposes, are grouped into regions around each central regional office. Minnesota and Iowa have been transferred to region 4, Kentucky to region 3, and West Virginia to region 2. These shifts were made to form more homogeneous planning units. However, the extent and boundary zone of each region is determined by the problems being dealt with and not by State lines. The regional offices and their location are shown on the accompanying map. The table also shows the name of the regional officer in charge of each office. (See fig. 7.)

The beginning of the fiscal year in July 1942 saw a new emphasis in the Board's activities on regional and planning. While the work of the regional planning area commissions was continued and their number increased, the regional offices concentrated their regional planning operations, together with those of other parts of the Board and cooperating agencies, in certain specific areas. The following summaries deal with their regional and area planning activities during the period June 1941 to November 1942.

General Plans

The outstanding current example of a general plan combining all factors into a single program is the recently completed preliminary plan for the Arkansas and Red River Valley region. An extensive report on development of the Southeast has been completed by the Southeastern Regional Planning Commission while the report on Development of Resources and Economic Opportunity in the Pacific Northwest will soon be published.

Revisions of the plans for the Northern Lakes States cut-over region and New England are being completed.

Intensive Area Planning Projects

A more detailed type of project covering smaller regions is represented by the intensive area-planning projects now in progress with the help of the Board. The selection of the locations for these studies was made to represent areas with conversion problems, chronic depression, rapid growth due to the war, or major developmental possibilities.

Although initiated by the Board, these projects are, in the majority of cases, sponsored and directed by local groups. The National Resources Planning Board offers its guidance and technical assistance to these committees and uses its good offices to secure cooperation from Federal, State, and private agencies.

The purpose of these locally controlled projects is to secure specific plans for a sample group of areas that are aware of their future problems, to undertake "through thinking" in the handling of wartime problems so that their solution will contribute to post-war development. The plans will show in detail the steps that must be taken to effect the post-war conversion of the industrial plants, to maintain full employment, and to provide for all desirable development. It is expected that the plans will include programs of action in which the size, number, location, and programming of all needed changes is clearly outlined in considerable detail. Particularly important will be the indication of timing and priorities, as the different parts of each plan must be closely related at every stage of development in the action program.

With the experience gained in these area projects, it should be possible to develop improved procedures whereby local planning can be carried on in cooperation with State and Federal agencies. Proposals for subregions must conform to regional and national plans, but depend on local enthusiasm and participation for

their execution. As an example to other localities which recognize the desirability of preparing now for the future, they can demonstrate the feasibility of local planning for an area.

Cooperative Investigations

The Departments of Agriculture, Interior, and War, and the Federal Power Commission, with the cooperation of the National Resources Planning Board, are endeavoring collectively to develop techniques and procedures whereby they can work most effectively together and with the State and local agencies in the field. When developed, the techniques will be particularly applicable to investigations which may lead to recommendations for specific projects or programs of public works.

Three areas have been selected in which to test and develop the techniques: The Santa Ynez and Santa Maria watersheds of Santa Barbara County, Calif.; the Meramec River Basin of Missouri; and the Merrimack River Basin in New Hampshire and Massachusetts.

Drainage Basin Plans

During 1942 it became evident that effective coordination of programs of public works for the war period and for the post-war transition period would be aided greatly by formulation of long-range water-development plans, based upon facts already known. Consequently, preparation of such plans was initiated in a number of basins throughout the United States. Of the 45 areas of drainage-basin committee activity, plans are now nearing completion, or are in progress, for all or parts of 15 of the areas: (1) The upper Ohio, (2) the Kanawha, (3) the Muskingum-Miami, (4) the lower Columbia-Willamette, (5) the Mobile, (6) the upper Rio Grande, (7) the Iowa-Des Moines, (8) the Wisconsin, (9) the Potomac-Upper Chesapeake, (10) the Trinity in Texas, (11, 12, 13) the upper, middle, and lower Arkansas, and (14, 15) the upper and lower Red River Basins.

War activities have made heavy demands upon the personnel of which the drainage basin committees are composed, as well as upon the water consultants. In the areas where war work has overloaded important committee members and consultants, it has generally been found impracticable to keep up the committee programs for long-range water planning. However, by personal contacts with basin committee members, instead of through regular committee meetings, the work of the consultants and that of the committee members has used the contacts established at the formal meetings, and has achieved a substantial measure of interagency consideration, which is one of the main objectives of the drainage basin committee work.

In addition, in July 1942, the policy of the National Resources Planning Board shifted the emphasis of its field activities somewhat from preparation of functional plans, such as those for the control or use of water, to intensive regional planning which encompasses all phases of resource development. The Board has encouraged drainage basin committee work only in those areas for which regional or subregional plans are in preparation. It has fostered the completion of the functional plans in those basins where they had previously been initiated. In other areas the work of the drainage basin committees has been generally curtailed.

With the impaired effectiveness of drainage basin committee work due to the war, the recognition of the value of these field committees has become more pronounced in many areas. The ease with which committee accomplishments can be translated into region-wide comprehensive plans, properly related to many other phases of resource, economic and social development, has been demonstrated during preparation of the Arkansas Valley report. The facility to resolve interagency conflicts, which these committees promote, has been exhibited on many occasions. The continuing effective coordination which they stimulate between Federal, State, and local interests has been of national value. The continuity of drainage basin committee activity during the war, over and above the relatively isolated cases where they pursue matters directly concerned with wartime or post-war plans, is important. Effort is being made to retain their sense of identity so that they may be able to assist in the post-war readjustment period.

Area Analysis

The method of integrated area analysis, originally designed to aid in public works programming, has proven highly useful as a basic, down-to-earth approach to community problems. It provides for assembling and interpreting in compact and usable form all the relevant facts about these areas that are needed in planning.

Responsibility for developing this subregional approach was delegated, in 1940, to a subcommittee of the Land Committee. This subcommittee, with the assistance of staff members and technicians from the Department of Agriculture, was responsible for the development of the method.

In May and June of 1941 the Board carried through a series of experiments with the area analysis technique. Through the Regional Offices Board consultants were assigned to 25 areas and 7 others were analyzed by technicians in cooperating agencies working with officials and citizens of the areas. On the basis of the experience gained by these experimental analyses, the subcommittee and staff prepared Technical Paper No. 6, *Area Analysis—A Method of Public Works Planning*, issued in July 1942. This paper has been widely dis-

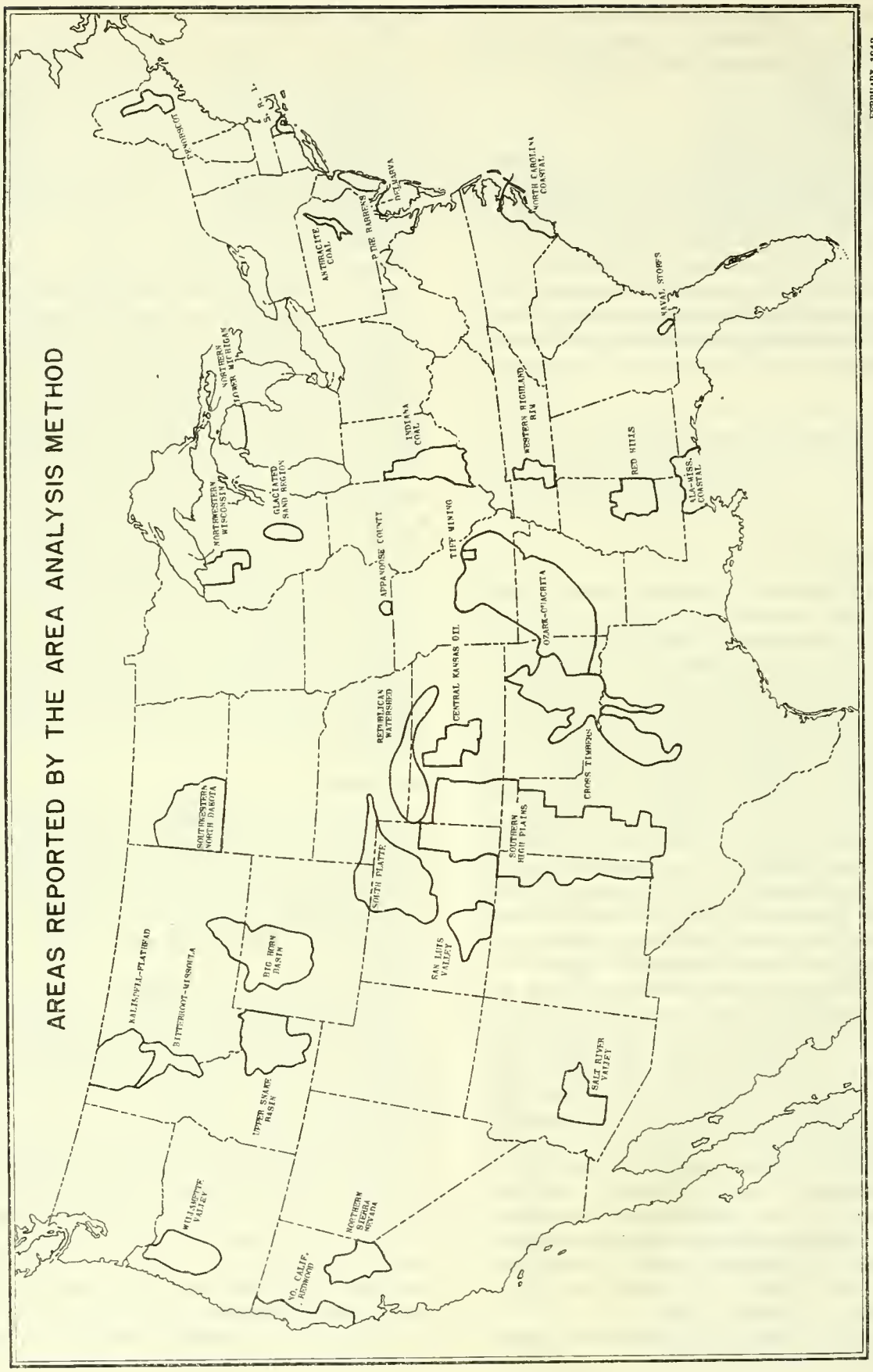
AREAS REPORTED BY THE AREA ANALYSIS METHOD
FEBRUARY 1942
PREPARED IN OFFICE OF THE NATIONAL RESOURCES PLANNING BOARD
KALISPELL-FLATHEAD
BITTERROOT-MISSOULA
BIG HORN BASIN
UPPER SNAKE BASIN
WILLAMETTE VALLEY
NO. CALIF. REDWOOD
NORTHERN SIERRA NEVADA
SOUTH PLATTE
SAN LUIS VALLEY
SALT RIVER VALLEY
SOUTHEASTERN NORTH DAKOTA
REPUBLICAN WATERSHED
CENTRAL KANSAS OIL
SOUTHERN HIGH PLAINS
CROSS TIMBERS
OZARK-OUACHITA
APPALACHIAN COUNTY
TIFF WINING
GLACIATED SAND REGION
NORTHWESTERN WISCONSIN
NORTHERN LOWER MICHIGAN
INDIANA COAL
ANTHRACITE COAL
PINE BARRENS
DELMARVA
NORTH CAROLINA COASTAL
NAVAL STORES
WESTERN HIGHLAND RIM
RED HILLS
ALA-MISS. COASTAL

FIGURE 8.

tributed among technical and planning agencies in the United States.

Figure 8 shows the location of the 32 areas analyzed by this integrated method. Not shown is Puerto Rico, where 2 area analyses have been completed.

The following area analysis reports have been published: (1) Washington and Kent Counties, R. I.; (2) anthracite region, Pennsylvania; (3) Delaware Peninsula, Del., Maryland, Virginia; (4) naval stores area, Georgia; (5) glaciated sand region, Wisconsin; (6) Republican River watershed, Kansas and Nebraska (7) San Luis Valley, Colo.; (8) Big Horn Basin, Wyo. and Mont.; (9) Salt River Valley, Ariz.; (10) Northern Sierra Nevada area, California; (11) Northern California redwood area; (12) upper Snake Basin, Idaho; (13) Bitterroot-Missoula area, Montana; (14) Kalispell-Flathead area, Montana; (15) Willamette Valley, Oreg.; (16) coffee region, Puerto Rico; (17) tobacco region, Puerto Rico.

Committee on Post-War Problems: Agriculture

One of the important developments in regional and areal planning has been in connection with the post-war planning activities of the Department of Agriculture.

Over a year ago the Secretary of Agriculture asked the Bureau of Agricultural Economics to establish an Interbureau Coordinating Committee on Post-Defense Programs. The group that was established, now known as the Committee on Post-War Programs, has agreed on general policies and has blocked out a program of work for the coming months in which all bureaus are participating.

In order to provide a simple and direct line of communication between the coordinating committee and the field, the States were grouped into nine regions for the purpose of post-war planning. In general, this grouping of States followed the existing regional boundaries of bureaus within the Department. Regional chairmen and committees were designated, the representatives being in all cases field officials whose work had already been closely related to post-war planning. These regional chairmen and their committees devote a major portion of their time to this work.

At a conference of Agriculture Department's regional chairmen in St. Louis on August 27 it was agreed that the items in the program of work to receive major attention before June 30, 1943, should be the following:

(1) The delineation of the country into homogeneous areas, or subregions, and the assembly of all information on this basis. One such atlas has already been completed for the Appalachian region and others are nearing completion. Agreement on the areas to be used was reached by Department agencies and by the land-grant college groups.

(2) The preparation of a detailed description of American agriculture by regions at the end of the war. So that all regions could make their estimates to the same point of time, the end of the harvest season in 1944 was selected. This picture of agriculture will be a broad and comprehensive one.

(3) Developing a statement of long-time desirable objectives and goals for agriculture for each region. This work is being handled so that a picture by areas and by States can be shown in quantitative as well as qualitative terms. The difference between agriculture at the end of the war, expressed in 2 above, and the "long time desirable," constitutes the problem for which plans are being developed under sections 5, 6, 7, and 8.

(4) Developing and stating several sets of assumptions as to what the situation may be during the latter part of the war, the transitional period into post-war and the long-time future. Plans can be developed on the basis of each of the sets of assumptions so that alternatives will be available to choose from at the time the plans are to be carried out.

(5) The preparation of State plans for physical resource conservation and development of crop and pasture lands, range land, forest, and water.

(6) Preparation of plans in the field of rural facilities, with rural electrification and housing (including sanitation) to receive major attention.

(7) Planning rural services, continuing to give major attention to health and wherever possible to set up experimental demonstration projects on a county basis. Rural hospitals, also in a sense rural facilities, are being handled in connection with the medical care program, as part of the general health program.

(8) Planning agricultural-industrial relations, studying their effects upon each other, the effect of location of resources, markets, and labor supply.

International Regional Planning Projects

Establishment of a lasting peace at the end of the war will require new types of international collaboration in the development and utilization of the world's natural resources. Success in securing the necessary economic and political cooperation will be measured largely by the willingness of nations and peoples to understand the over-all place of great national regions in the world economy.

Experience thus far in analyzing the problems of a large natural region overlapping international boundaries is very limited but several projects of this type are now under way, particularly in the North Pacific and the Caribbean areas.

Region 1—New England

New England Regional Planning Commission

This permanent over-all planning group, composed of representatives from the six New England States, has been active since its establishment on March 1934.

Completion, in October 1942, of a revised regional plan for New England and of a report on the *Integration of the New England Regional Plan* meant the passing of another important milestone in regional planning for New England. Although this plan is, in a sense, amplification of the preliminary plan first issued in 1937, it is much more all-inclusive and "down to earth."

Preparation of the 1942 plan followed, for the most part, the following sequence. The region's resources—human, man-made, and natural—were analyzed in some detail from the standpoint of distribution and possible future usefulness. Future distribution of activities, both producing and consuming, was then estimated on the basis of trends, resources distribution, and plans and recommendations of other agencies working in the field. Generalized plans for future land use and public facilities were then worked out in conformity with this probable activities pattern and with such plans and recommendations as have been prepared by Federal, State, and semipublic agencies. The next steps will be to distribute copies of the plan to all these agencies for criticism and further revision; to work out procedures for carrying out the plan, particularly as these procedures relate to changes in the assignment of government responsibility or to designation of specific public works construction projects; and to refine the details of the plan preferably through local area studies carried on cooperatively by the regional office, State and local planning agencies, universities, and semipublic planning and development groups. Material has been assembled which will make it possible to indicate in a later revision of the plan a suggested post-war distribution of workers in natural resource and manufacturing activities.

Several studies have been carried on which tie in closely with the preparation of the integrated regional plan. The merits of specialization and diversification in industry have been summarized in a report entitled, "*Another Tale of Two Cities.*" This practical study, documented by detailed analysis of conditions in two typical New England cities, is useful to those concerned with post-war industrial planning. The regional office has made an exhaustive collection of information on New England forestry and a searching analysis of its problems.

To foster post-war planning in the complex semirural communities of New England, the Commission has undertaken two sample studies of the post-war rural pattern. One concentrates on conditions in northern New England and endeavors to outline a planning pattern and procedure which may well be followed by the small business and manufacturing centers dotted throughout Maine, New Hampshire, and Vermont. The other will analyze the intricate pattern of commercial and semisubsistence farming, forestry, recreation, and industry which is so typical of the upland towns in southern New England. Both of these studies have made significant contributions to the background work on the regional plan.

Still another contribution to regional planning has been the pioneering work in the field of pollution classification. A subcommittee of the Drainage Basin Committee has prepared a procedure for classifying streams as to the extent to which it would be feasible to apply control measures. State committees were carrying on this work in five States until the stress of war problems forced temporary abandonment of the program. Nevertheless, all of Connecticut and about half of Massachusetts streams have been classified and these classifications are shown on the regional plan. The classification procedure has been included as part of a semitechnical report on pollution problems and possible solutions, *The Rivers Speak.*

The New England regional plan now includes sufficient data covering practically all phases of the physical, economic, and social conditions to enable region I of the National Resources Planning Board to make specific recommendations for the post-war period as parts of a general regional plan. The facts, methods, and procedures developed during the past 8 years now make it possible for the first time to recommend action by the local, State, and Federal authorities.

These authorities should proceed to draw detailed specifications so that an integrated action program will be ready at the proper time in keeping with the recommendations from the regional plan.

Regional Office

In keeping with the emphasis which this office has always placed on education as an integral part of the planning function, *Education for Planners* was published in June 1942. This report, presenting a summary of courses in planning education in colleges and universities throughout the country, appears to be the first relatively complete document giving the actual content of planning curricula. It also contains many comments from leaders in the field of planning education as to what courses should be offered.

Public-works programming is taking hold well in New England. All six New England States are engaged in programming operations; New Hampshire is revising the program first passed by the legislature in April of 1941. Twenty-nine cities and towns, including

half of the largest cities in the region, are at present working out municipal capital budgets, nine of them for the second, third or fourth successive year.

In January 1942 the regional office issued a bulletin outlining the scope of public-works programming and capital budgeting, describing the governmental set-up for assisting State and local governments in carrying on such operations, and pointing out the relationship which should exist between public works programming and the over-all planning picture. Many municipal agencies have used this bulletin as a guide in their programming operations.

A third publication issued by the regional office during the past year was *State Legislation Relating to the Development and Control of Aviation in New England*. This revision of an earlier report was prepared at the request of the New England Conference of State Aviation Officials. It summarizes the legislative programs which resulted, at least in part, from the regional office's earlier reports to obtain adequate and uniform aeronautical legislation throughout the New England States, and points out further measures that need to be taken. The regional staff cooperated with the State aviation officials on frequent occasions, chiefly in connection with the preparation of potential flight strip plans requested by Army Air Corps authorities. With the exception of two or three airports designed to meet purely military needs, the program of airport construction and expansion carried on for military purposes during the past 2 years has followed and has been guided by the regional office's plan for civilian airports, In this way planning has assured the future usefulness for civilian purposes of millions of dollars worth of airports constructed primarily for defense purposes.

The regional office has contributed to successful prosecution of the war programs. Through its economic consultant, it has reported regularly on conditions of war employment and on trends of activity in war industries. It has also performed a clearing-house service in this connection, keeping nearby regional offices of Federal agencies posted on the activities of other groups working in closely allied fields.

Defense public works and housing programs have been followed closely by the regional office. Frequent conferences have been held with representatives of the former Division of Defense Public Works of the Federal Works Agency and the National Housing Agency in an effort to arrive at ways in which needed programs could be planned to assure maximum usefulness in the post-war period.

The regional staff has assisted the Office of Defense Health and Welfare Services in preparing defense area reports on the 19 most critical areas in New England, the starting point for detailed studies by the numerous agencies operating in these defense areas, and officials have found them generally useful as the best way of getting a quick, reliable over-all picture of the situation in any given defense area.

At the request of the New Hampshire State Planning and Development Commission the regional office cooperated in a joint study of the two-State Portsmouth Navy Yard area. Because there was no State planning board or other agency equipped to handle the Maine aspects of the problem the regional office furnished not only technical assistance in the form of a part-time consultant, but also carried on the necessary contact and ground work in the Maine part of the area. The results of the study were published in a report, *The Piscataqua Regional Defense Area of New Hampshire and Maine*, which presented a fairly detailed long-range plan for the area, as well as many recommendations on how best to cope with war-induced emergency situations.

New England, as the nearest section of the country to Europe, has naturally been wide awake to civilian defense problems. The regional Office of Civilian Defense has looked to this office for assistance in preparing plans for evacuation in the event of threatened bombing or invasion attacks. The regional staff has been represented on the board of consultants to the regional evacuation officer, and has prepared and made available to OCD considerable data requested by them.

Other staff activities include regular participation in an informal group organized to serve as a clearing house for research and statistical information collected by the various Federal war agencies in the area.

Region 2—Middle Atlantic

Regional Office

The regional development plan for the Middle Atlantic region was prepared in the regional office with the cooperation of regional and State planning agencies, Federal field agencies, and citizen groups. Published as a reprint from the *Regional Resources Development—Report for 1942*, the plan for the Middle Atlantic region presents brief summaries of the region's outstanding problems. Special emphasis has been placed on the present economic basis, the future prospects, and the long-time trends of industries in various communities. Against this background, suggestions have been made for private and public works and for other development activities.

Industrial Studies, Region 2, prepared in June 1941, gave a general picture of the region's important industries and a survey of the forces making for shifts in their location and for changes in employment opportunities. Particular attention was devoted to the effects of the "defense program" on industries and communities. The section on *Foreseeable Changes in the Industrial Pattern* was revised in July 1942, in the light of war developments.

During the early spring of 1942 members of the regional office staff gave assistance to the Federal Anthracite Coal Commission which had been charged by the Congress with investigating ways and means for improving economic conditions in the anthracite coal producing regions. The Commission's report was referred to the House Committee on Mines and Mining, April 2, 1942, and printed as *Economic Conditions in the Anthracite Coal Regions.*

Quarterly reports on economic trends, with particular emphasis on current employment and labor market conditions have been prepared during the period.

Following the report entitled, *Water Supply in the Hampton Roads Area,* prepared after a survey made jointly with the sanitary engineer, Virginia Department of Health, the National Resources Planning Board initiated a regional water study there. A later detailed report, *Hampton Roads Regional Water Supply Study,* prepared as a result of the cooperative study, was completed with the aid of local, State, and Federal authorities.

Another publication contributing to areal planning is *Problems in Long-Term Municipal Fiscal Policy with Special Reference to Norfolk, Va.,* issued in December 1941.

The regional office assisted the Maryland State Planning Commission in the preparation of the report, *Preliminary Economic Study of the Western Allegany County Area,* published in December 1941.

Acting as chairman of the Committee on Planning for Regions 2 and 3 of the Office of Defense Health and Welfare Services, the regional chairman and other members of the staff attended many meetings of the regional advisory council of the defense health and welfare services in their regions—2, 3, and 4. Review of the Lanham Act community facilities requests and recommendations in local programming reports of Defense Housing Coordinator has been carried on by staff members.

Cooperating with the Public Work Reserve and its successor, the Local Public Works Programming Office, consulting service was provided to the several State and local programming offices, with widely varying results. North Carolina led the region with five reports completed and published, mostly in smaller cities. A larger report in Durham, N. C., is now being concluded. In Virginia a substantial amount of progress has been made in half a dozen locations, although budgetary difficulties have not allowed any programming to be carried to completion. The same is true throughout Pennsylvania, New Jersey, and New York, with the exception of Pittsburgh which is expected to complete its program shortly. In Maryland considerable assistance has been furnished by the Maryland State Planning Commission in the preparation of a preliminary programming report for Baltimore County. A series of meetings with Federal and State officials in New York, Pennsylvania, and New Jersey explored plans for removal of industrial wastes from their rivers.

Niagara Frontier Planning Project

This area, Niagara and Erie Counties, N. Y., including Buffalo, Niagara Falls, and other places, represents a section in which conversion problems after the the war will be quite serious. The economic future of the large aircraft industries, the other new war plants, and the heavy industries that have been converted to war purposes is the core to the post-war problem in this area. And any further long-time industrial developments in and around Buffalo and Niagara Falls will depend on the additional supply of low-cost power.

A preliminary background for this planning project was provided by a joint reconnaissance field survey completed in April 1941 by the regional office in cooperation with the State bureau of planning and the Office of Defense Health and Welfare Services. Recommendations from this report were acted upon by the New York State Federal Regional Advisory Council. Another more recent source of material for the area planning project is a preliminary report—*Niagara Frontier Area,* issued in June 1942 by the NRPB and ODHWS. This described the effects of the war and indicated the direction of essential programs to be undertaken immediately, and in the post-war period.

The local sponsoring committee to the current area planning project was informally organized in August 1942. It is composed of representatives of the Niagara Frontier Planning Board, Niagara Frontier Planning Association, Buffalo and Niagara Falls Chambers of Commerce, Buffalo City Planning Commission (newly established), city of Buffalo and United States Employment Service, and Buffalo City Planning Association. The president of this last organization was elected to be chairman. The National Resources Planning Board was invited to assist the group, and assigned a planning technician to devote full time to this project. At a meeting of the sponsoring group on September 22, 1942, a program was adopted. Its central purpose was declared to be the maintenance of post-war industrial activity, employment and income at a high level.

A work outline giving some details of the program to be followed has been prepared. In it the agency taking leadership for each part of the project is indicated. Industrial problems are being studied by the Chambers of Commerce of Buffalo, Niagara, and Lockport. Public works are the primary responsibility of the Niagara Frontier Planning Board. Urban redevelopment and expansion are being worked on cooperatively by the Buffalo City Planning Commission and Association and other comparable local groups.

Region 3—Southeast

Southeastern Regional Planning Commission

The period since July 1941 has witnessed the further development of the first major regional planning enterprise in the South—the Southeastern Regional Planning Commission. In an earlier series of four meetings the Commission developed a tentative organization and program. In order to lay out a practical and constructive long-range program, the Commission then initiated work on an intensive and detailed regional development report for the Southeast. On the basis of this report, completed during the fall of 1942, the executive committee of the Commission has prepared a tentative statement directed toward the adoption of a continuing program. Scheduled for Commission action in December, this provides for the formation of a series of special standing committees on finance, industrial development, agricultural development, and legislation. The special concern of each committee will be the translation of the regional planning report recommendations into public and private action.

In addition to the State planning board staffs and the staff and consultants of the NRPB field office, many other agencies have collaborated with the Commission in the preparation of its regional development report.

This development report, prepared by the many specialists on the basis of the Commission's suggestions and in various conferences with its members, is being printed for release to the public early in 1943. The first part gives a description and an analysis of the region, and its problems, while the second part is a compendium of statements suggesting action in the functional fields of agriculture, industry, forestry, water resources, education, health, housing, recreation, Government, and public administration.

One purpose of the Commission is to disseminate regional planning material in order to obtain the best current judgment on regional planning problems and opportunities. At its spring meeting in 1942 the Commission devoted considerable attention to the possibilities of using sound movies, pictorial and graphic brochures, popularized pamphlets, etc., as means of presenting such materials.

Another important aspect of its function as a stimulator of regional action will be in the field of State and local legislation. In nearly all of the functional fields in which its studies have been made, the Commission has found the necessity for legislative action. The members of the Commission believe they have an unusual opportunity to develop uniform interstate procedure in matters requiring legislative treatment. The Commission, in addition, is attempting to seek out functions particularly vital to regional development for which there is no adequate public or private agency operating on a regional basis. For instance, in its program for 1943, it plans to establish relationships between public and private technological research laboratories on the one hand, and business and banking interests on the other. By maintaining a close working relationship to students of various aspects of southeastern development, the Commission proposes to keep its program directed toward the most urgent and vital problems in which it can be helpful.

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Regional Office

From the inception of the State and local public works programming effort in July 1941 under the Public Work Reserve, sponsored jointly by NRPB and FWA as a WPA project, to the termination of its activities under the Local Public Works Programming Office of the FWA, the NRPB field office was active in the technical guidance of the program. Under the program of local public works programming a total of 23 reports were completed in Alabama, Georgia, Florida, Mississippi, South Carolina, and Tennessee. In addition, at the close of the program in July, local reports were in process of completion in 20 communities and commitments were outstanding to assist 22 additional communities in the preparation of public works programs. No public works programs for State governments, as such, were completed, but in each of the 6 States many separate departments had completed their programs and State reports were well along toward completion. Since the close of the Local Public Works Programming Office, the NRPB field office has continued its efforts to service the programming of public works at the State and local level. The programs in process and the commitments to assist in the programming operation listed above provide the agenda of work in this connection which the field office has scheduled for the fiscal year 1942–43.

In addition to the cooperative relations with other agencies in preparing the reports mentioned above, the regional office collaborated with the Southern States Work Conference on Educational Administrative Problems, composed of administrative officials of State departments of education from 11 Southern States. The general purpose of the conference was to prepare uniform and progressive administrative principles, standards, and procedures in each of the educational fields with which State officials are concerned, viz, teacher training, curriculum building, finance. Cooperating with the NRPB, this will take steps during the year 1943 to further the school and classroom use of materials devoted to regional planning problems and possibilities in the Southeast.

The regional officers have continued to assist in the stimulation of the State and local planning movement and to counsel with governors and State officials regard-

ing adequate funds and staff arrangements for planning. The interest which has developed during the period in post-war problems has brought an increasing number of requests to the regional officers to meet with citizen groups interested in those problems. During the period the regional officers addressed such groups as the Alabama Policy Committee, the Southern Sociological Society, American Society of Civil Engineers of Alabama, Civitian Club, and Social Workers Association of Atlanta.

Pursuant to the policy memorandum between Governor McNutt, Director of the Office of Defense Health and Welfare Services, and Director Eliot of NRPB, the Atlanta field office has collaborated throughout the period with the regional ODHWS in the preparation of joint defense area reports. A number of reports had been completed by the fall of 1942. The reports covered the following areas: Charleston, S. C.; Mobile, Ala.; Tampa, Jacksonville, and Panama City, Fla.; Savannah, Macon, and Brunswick, Ga.; and Jackson-Flora, Miss. An agreement between the regional ODHWS director, the Atlanta NRPB field office, and the Tennessee Valley Authority gave the TVA responsibility for areas within the Tennessee Valley; under this arrangement reports were completed for Milan and Chattanooga, Tenn., and Huntsville and Muscle Shoals, Ala.

In September of 1942 the regional director of the War Production Board in Atlanta organized the regional economic advisory committee. Its membership is composed of the regional heads of Federal war agencies and Federal civilian war agencies engaged in work related to the war effort. The NRPB field office is represented through its regional counselor. As a coordinating device the committee has served to develop among its membership a useful working knowledge of the personnel, responsibilities, resources, and activities of each of the constituent agencies.

The NRPB field office, having accumulated a rich fund of information on defense areas, has served as a clearing house for defense area information. Throughout the period, and increasingly as its consulting, research, and information services proved more useful, the field office has responded to a large volume of requests from officials of State agencies and Federal war agencies for such information. To prepare a part of this material in readily usable form, the office has developed a series of maps depicting war industries and military establishments for the region as a whole and a series of maps depicting war industry and military activities in relation to community adjustment problems within specific communities. Releases of these materials have been made upon request whenever it has been possible under censorship and espionage regulations.

Coosa Valley Planning Project

Studies directed toward the preparation of an intensive area plan of the Alabama-Coosa watershed, a part of the Mobile River system, were initiated in the summer of 1942. Just outside its boundaries lie four large metropolitan areas of the Southeast—Atlanta, Ga.; Chattanooga, Tenn.; and Birmingham and Mobile, Ala. Virtually all of the problems and developmental opportunities characteristic of the Southeast are found within the comparatively small area of the watershed and are thus readily detectable and manageable.

The study has been sponsored by the Southeastern Regional Planning Commission, which has appointed a committee composed of representatives of the State planning boards of Alabama, Georgia, and Tennessee to head the project. This committee has arranged for technical contributions from cooperating agencies, private, State, and local, and this type of participation will be increased as the work progresses. Assignments have been made and work started, in developing long-range programs relating to services and facilities for health and recreation, transportation, and power production. Conferences have been held to direct the preparation of industrial development studies, and similar conferences on agriculture have also been held. Both the industrial and the agricultural aspects of the study have been initiated and outlined in detail. The NRPB field office, with statistical assistance from its WPA project, has brought to virtual completion a graphic social and economic description of the area and is releasing for technical criticism a preliminary paper setting forth an economic evaluation of its counties. These materials have been requested by participating agencies as a means of providing a qualitative background for their respective specialized interests.

The most important factors in the development of the Alabama-Coosa area are its rich mineral resources and its potential river improvement—the provision of hydroelectric power, river navigation, and flood control in a unified undertaking. The latest detailed United States Army Engineers' report in this connection will be available early in 1943. These details will be incorporated into the study and closely related to all other developmental factors, especially to proposals for new industries. The injection into the area of river navigation as a new transportation facility necessitates the inclusion of a careful study directed toward an integrated highway, waterway, rail, and air transport pattern, including the integration of terminal facilities.

Region 4—Midwest

Midwestern Regional Planning Commission

Late in 1941 the National Resources Planning Board requested the assistance of a group of prominent citizens in the Midwest area to comprise an advisory group for the guidance of the field office. Dr. Edward C. Elliott, president of Purdue University, Dr. Louis Wirth, professor of sociology, University of Chicago, and Prof. George Wehrwein, department of agricultural economics, University of Wisconsin, were selected to comprise the newly formed regional advisory committee. Dr. Elliott served as chairman until his duties with the Manpower Commission compelled his resignation.

The regional advisory committee worked very closely with the field office in an attempt to formulate a program commensurate with the available staff and budgetary limitations. The working relationship was so satisfactory that it was thought desirable to set up a more formal group, to be known as the Midwestern Regional Planning Commission. In order that region 4 should consist of a more unified group of States, the States of West Virginia and Kentucky were transferred to regions 2 and 3 of the Board, and the States of Minnesota and Iowa were transferred from region 6.

A preliminary meeting to discuss the character of the new commission was held September 17 in Chicago. After this meeting the invitations for membership on the new regional commission were sent out, and Dr. Louis Wirth was selected as chairman.

The Midwestern Regional Planning Commission, its organization completed in October 1942, has not yet convened.

Regional Office

The activities of this regional office are largely described below, in connection with the Northern Lakes States Regional Committee and Southern Illinois Area Planning Project. Another area planning project for which negotiations are now in progress, is the Detroit Metropolitan Area.

First stage basin plans have been completed for the upper Ohio-Beaver, and Kanawha, and the Muskingum Scioto-Miami Basins. These are composed of three maps each, one dealing with the basin as it now exists, the second depicting the plans for the development of that basin, and the third showing how the basin will look in the future upon completion of the plans. Appropriate texts are being prepared describing the plans for each basin. In addition, base maps have been prepared for the Wabash-lower Ohio, the Rick-Illinois-Big Muddy-Kaskaskia, and the Big Sandy-Guyandot-Kentucky Licking Basins.

In order to supply readily available information on this region in convenient form, the staff prepared and published a series of maps, charts, and tables describing economic and social conditions. And through its regular reporting service, the regional office has been issuing quarterly reports on economic conditions and trends within the region.

Northern Lakes States Regional Study

The National Resources Planning Board several years ago undertook to study the problems and needs of this large cut-over forest area.[3] However, a number of significant changes have occurred since that time. The revival of mining activity in the Northern Peninsula of Michigan and in the Mesabi Range in Minnesota present special problems which were not anticipated in the committee's previous reports. The States of Wisconsin and Michigan have passed land-acquisition legislation in order to retire such submarginal land as becomes available through tax delinquency. In addition, the United States Forest Service and the State conservation departments of the three States have been working to institute healthier forest management practices. Many of the inhabitants of this area, forced to migrate as a result of these programs, have gone to industrial centers. Because of these and other changes, the officials and citizens of the region feel that it would be timely to reexamine the region and to make plans for placing it permanently on a sounder economic footing.

The Northern Lakes States Regional Planning Committee and the State subcommittees have been holding meetings to review the original report and to revise it in the light of the many changes that have taken place since 1939. Particularly needed at present is a summary of the effects of war activities in the cut-over and mining areas on long-range and post-Wisconsin, and Minnesota are extending every available facility to assure the successful conclusion of this study. On November 9, 1942, the full committee met at Madison, Wis., to go over the recommendations that have been formulated by the various State committees, functional subcommittees, and area committees.

Southern Illinois Planning Project

Beginning with the first decline in the operation of its coal fields two decades ago, southern Illinois has been studied by a number of Federal and State agencies. Because the problems in the area have remained relatively unchanged, the regional advisory committee decided that the greatest need was for a synthesis of these existing studies into a comprehensive report on the area, embodying recommendations for necessary actions to be taken by the proper agencies.

The committee agreed that the Illinois State Planning Commission should take the leadership in this

[3] National Resources Committee, *Regional Planning, Part VIII—Northern Lakes States*, May 1939.

study, and the National Resources Planning Board offered its cooperation and staff assistance. The Illinois State Planning Commission has formally approved a study of the area as a project for its staff. Both the commission and the regional office of the NRPB have prepared detailed comprehensive outlines for the study which will proceed when working relationships are established.

Region 5—Central Southwest

South-Central Regional Planning Council

The South-Central Regional Planning Council (RPC) is comprised of about 75 individuals drawn from various planning and developmental fields within the 4 States of Arkansas, Louisiana, Oklahoma, and Texas. It is not an official agency and does not have a fixed membership, funds or statutory authority. The council, which grew out of the initial effort of the NRPB regional office in 1940 to prepare a regional development plan, is regarded as a panel of expert advisers to the Dallas regional office of the National Resources Planning Board.

The council has for its major objective the further refinement and gradual execution of the long-range regional development plan which it helped the regional office to prepare in 1940. In order to carry on specific technical studies functional committees have been set up as needed within the council. Thus far there are committees on land, industry, and population, and eight drainage basin committees concerned with water problems and plans.

The land committee was one of the first to be organized and has rendered valuable assistance in advancing the regional plan by dividing the region into some 21 subregions each of which is more or less homogeneous in character. It prepared a map delineating these subregions, accompanied by a description of the physical characteristics, economic development, major problems, and needed adjustments of each. This map, which was prepared largely from the agricultural point of view has now been adopted by several agencies in the Department of Agriculture, and thus provides the broad framework within which the Department's war and post-war land-planning action programs are being conducted.

The industrial committee collaborated with the industrial section of the central office in the preparation of a preliminary regional office report on *Industrial Possibilities in the South-Central Region*. The report has since been issued for limited circulation.

The population committee drew up a tentative outline for a regional population study, and expects to undertake a series of related studies in this field in an effort to bring together certain important aspects of population planning not hitherto available.

The eight drainage basin committees which antedate the regional planning council by several years have been engaged in cooperative water-planning activities within each watershed area. They have since become part of the full regional planning council.

A number of subcommittees of the drainage basin committees have been created dealing with pollution, ground water, recreation, and bank erosion. The pollution subcommittees have drafted a proposed act of sanitary standards for stream classification and zoning which served as the basis for a stream purification plan in the Arkansas Valley regional plan.

The chairman expects shortly to set up a post-war planning committee within the council to coordinate such activities throughout the region and to encourage post-war planning at the several universities.

The regional planning council as a whole has made important contributions to the formulation of the regional development plan, both in its original form of 1940 and its revised version of 1942. It has also rendered valuable assistance in connection with the Arkansas Valley planning project which is in effect a further detailing of that part of the regional development plan within the Arkansas and Red River Valleys.

It is worth while to note that many projects have recently been completed in accordance with the broad regional plan. These include reservoirs, dams, waterways, levee, sewerage, and water supply projects, highways, airports, and recreational developments. In many of these the regional planning council has played an important advisory role.

Regional Office

The regional office has been occupied with the preparation of the Arkansas Valley report and with the activities of the South Central Regional Planning Council, in addition to its other regular duties.

Further consideration is being given to the organization of an intensive area planning project in the Houston-Beaumont section. This will be a start toward the eventual planning of the entire Texas coastal area, in which there are many developmental possibilities. As a part of this latter objective a progressive urban planning demonstration is being undertaken in Corpus Christi.

Since the initiation of Public Work Reserve in June 1941, the regional office has assisted in the preparation of public works programming reports. A total of 17 have been completed in the 4 States, including reports for cities and counties; 10 more in Louisiana and Arkansas are partially completed, and the reports for these 2 States are also in progress.

The Dallas office of the NRPB has contributed to the work of the Pecos River joint investigation since its in-

ception in the spring of 1939. This project, directed by the Denver office of the NRPB, embraces portions of New Mexico and Texas. The region 5 office was frequently consulted by the Governor and other officials in Texas as arrangements have progressed.

During 1942 the regional office began the preparation of quarterly reports on employment and economic conditions. Four of these confidential reports assembled in Washington as a national report from the regional contributions have been completed. The technique for preparing them has been developed under the guidance of the Washington staff with the wholehearted cooperation of numerous State and Federal administrative and data-collecting agencies who contribute current material.

Active working relationships have been maintained with the Department of Agriculture regional committee on post-war planning. The regional office is preparing materials for the industrial subcommittee of this group. The chairman of this agricultural post-war planning committee in the South Central region recently became regional counselor for the region 5 office of the NRPB, thus cementing the cooperative relationship between these two agencies.

Arkansas Valley Planning Project

The outstanding current example of a general plan combining all factors into a single program for a given region is the recently completed preliminary plan for the Arkansas and Red River Valley region.[4] This plan outlines in considerable detail a program for development and conservation of the resources within the region.

Fundamental objectives of the plan are full employment for the people of the valley and full utilization of resources, both during and after the war. In the brief time allotted, those working on the project have confined their efforts largely to the assembly and interpretation of existing information rather than attempting new research.

The Arkansas Valley project covers an area of over 200,000 square miles. The region is divided into at least two parts by every Federal agency, so that numerous Federal regions are represented in the large area covered by the project.

In the beginning each of the State planning agencies and each Federal agency concerned was informed of the nature of the planning project. Specialists in the major fields included in the study were selected to serve as consultants and coordinators for the work in each field. They were chosen to make special studies in the following fields: People, land use and farm organization, water resources development and use, power, minerals, industry, cities and communities, education, governmental administration, transportation, recreation, and legislation. Mr. E. R. Henson, director of the project, was given the responsibility of assembling and integrating the material dealing with these subjects.

The recommendations of many local groups have already been used in the formulation of the general plan as it now stands. In the succeeding steps leading to program execution, further local participation by individuals and groups in the States, areas, and communities will be sought. A great amount of additional research and study of State and local problems needs to be made by local people. When they have given thorough consideration to the general plan, necessary modifications and additions will be made.

The report describing the plan itself is in two parts. The first deals with specific adjustments in agriculture, industry, institutions' services, and service industries, and with the redistribution of the labor force. Suggestions are made for carrying out the plans and for implementing the changes that need to be made. The second part gives the basis for the plan, using the analyses of existing conditions in the region as shown by available surveys and other material.

Region 6—Missouri Valley

Missouri Valley Regional Planning Commission

The Missouri Valley Regional Planning Commission, established during the year 1941, is another of the newer regional commissions. Specific interstate problems had come up in the past and appropriate commissions had dealt with them, but the number of such problems indicated that a commission was needed to attack the larger and more complex problems emerging throughout the region.

After several preliminary conferences, therefore, a group of key people from the Midwestern States met in Omaha, Nebr., on May 23–24, 1941, and recommended the organization of the Missouri Valley Regional Planning Commission to embrace the States of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Montana. Members of the Commission were subsequently appointed by the Governors of these States and the Departments of Agriculture, War, and Interior.

The first organization meeting of the Commission was held September 4–5, 1941. At that time two special committees, Land Use and Industrial Location, were established. With the help of these two technical committees the group has been able to give considerable assistance to the National Resources Planning Board from time to time. It was further determined that the Drainage Basin Committee would function for the Commission in the field of water resources. Current

[4] *Regional Planning, Part XII—Arkansas Valley Report*, National Resources Planning Board, (in preparation.)

work programs were approved at the June 20, 1942, meeting of the Commission.

The Commission has also been effective as a clearing house in distribution research and planning information to local, State, and Federal agencies. This activity has resulted in coordinating the work of the various Federal and State departments and other groups and has prevented duplication of effort which would be expected to occur where over-all planning facilities are not available. It has assisted the Federal Works Agency in establishing priorities on war public works, and has also helped prepare brochures on possible war plant site locations throughout the region.

At the same time the regional commission was established, a work program was adopted leading to the formulation of a regional plan. The original plan covered the main fields of water and land resources, industrial research and local problems, subregional joint investigations, State and local planning, public works, and public works programming.

The program of work now assigned to the Industrial Location Committee involves over-all regional industrial studies, industrial conversion studies for the post-war period, and the sponsorship of additional applied industrial research in the region. The program of work outlined for the Land Use Committee includes periodically issuing information on agricultural planning to all interested agencies. It also includes preparing and maintaining a list of employment absorption potentialities for the post-war period, studying possible processing and other industries for rural areas, investigating the interrelated effects of the war program upon agriculture, and assembling information relative to possibilities of small irrigation projects to assist in rehabilitating blighted rural areas.

Regional Office

Considerable work has been done during the last few months in compiling information for the preparation of an over-all regional industrial report. This study is attempting to analyze the effects of the war program on the total regional economy with a view to making recommendations for adjustments to a post-war economy.

Perhaps the most important contribution which the regional office and the Commission has made to planning in the region was the preparation of the *Regional Development Plan Report for 1942, Missouri Valley*, published by the National Resources Planning Board. This gives a brief survey of the main characteristics of the region and outlines the matters which require further study.

Another important regional activity during the past 18 months has been capital improvement budgeting. Some 45 governmental units started the work during the operation of Public Work Reserve and its successor organization, the local public works programming office. In many cases, particularly in smaller municipalities, programming was being carried on principally by means of the outside assistance being furnished. With the withdrawal of Federal assistance, some cities were forced to drop the work. Larger cities, however, are completing the work with their own staffs, with consulting assistance from the National Resources Planning Board, and in one case with the help of a private planning consultant. During the year programming reports were published for 7 towns or counties, and completed for 5 more. The 8 units in which programming is still actively under way are all large cities or other important Government units. This supports the conclusion that interest in programming is dependent upon the quality of local administration.

The regional office has continued to prepare quarterly reports on economic trends in the region. These reports have given special attention to agriculture and war industries and have indicated problems which have arisen under the war effort with respect to labor or material shortages, as well as community problems, such as housing and transportation.

Important activities have been carried on by the various drainage basin committees, which include the upper and lower Missouri, the Platte, and the upper Mississippi. The formation of a Missouri River States Committee was recommended at a recent joint drainage basin committee meeting and temporarily organized at Billings, Mont., on July 29, 1942, when it was decided that an invitation be extended to the Governors of the three lower Missouri States, namely, Iowa, Missouri, and Kansas, to also appoint representatives. This has been done and a meeting of the full committee organization is planned for early in 1943.

The work of the drainage basin committees themselves has dealt with proposed diversion projects, the relationship between upstream and downstream development on the Missouri, interstate use of the waters of the North Platte, and the revision of water basin plans.

Region 7—Mountain States

Mountain States Council

The Mountain States comprise another region in which a regional planning body has recently been organized. At a meeting on May 23, 1942, in Denver, a large number of leaders in civic, university, State, and Federal organizations met to consider and to form this regional group, now known as the Mountain States Council for Planning, Research, and Education.

A board of directors consisting of 11 members was selected at the open forum meeting in May. These members of the board, of which the chairman is the president of the University of Colorado, are widely representative of regional interests. In its organization and purpose the council is in many respects patterned after the Northwest Regional Council. Recent meetings of the board have been concerned with financing the council's activities, selecting a director, and formulating a program of work.

The council's program of activities has not been crystallized, but will evolve around the following three ideas: (1) There is a need for regional cooperation and coordination; (2) regional and local effort is important to supplement national programs; (3) there is a need for a threefold approach to regional problems, through research, policy formulation, and the dissemination of information; and (4) in the fulfillment of these needs the organization of a regional council was an essential step.

Regional Office

Work on a Mountain States plan has been started by the National Resources Planning Board's region 7 office and will be supplemented in the future by research and educational activities of the Mountain States Council. The regional office completed its *Regional Development Plan, Report for 1942, Mountain States,* with the cooperation of regional and State planning agencies, Federal field agencies, and citizen groups. This report briefly surveyed the basic characteristics of the region and indicated the lines along which future study and development should take place.

A sample of the more detailed study necessary for a complete regional plan has been provided in the comprehensive report, *Industrial Development of the Mountain States Region,* completed by the regional office in September 1942. Begun in 1940, it attempts to show the basic economic pattern of the region, the extent to which the region is participating in the war program, and the factors determining the location of industries within the region. It deals with the factors affecting the war and post-war economy in the region and with the programs which could assure a better balanced economic pattern for the region and specific localities. The report is perhaps of greatest value in pointing out the opportunities for the future development of certain industries in the region.

The regional office worked closely with the State public work reserve directors for Colorado, Wyoming, and New Mexico in their endeavor to initiate the public works programming procedure at both State and local levels. Assistance was provided through regional programming consultants of the National Resources Planning Board. At the time the PWR offices were discontinued, little more than a good start had been made on the programming work in the three States. Eight areas and the States of Colorado and New Mexico had started their financial analyses, however. Since the local public works programming offices were discontinued, the NRPB regional programming consultants have carried on the work. In Colorado a report on programming at the State level (State institutional building program) may be possible by the end of 1942. In New Mexico the State planning board is actively continuing the work at the State level and with the assistance of the regional consultant expects to complete a comprehensive programming report before the end of 1942.

On August 31, 1942, a large group of representative citizens of the intermountain area comprising western Colorado, northwestern New Mexico, and eastern Utah met with representatives of the National Resources Planning Board at Grand Junction, Colo., to consider the development and planning organization that should be set up and a committee of nine was appointed to organize such a group. Subsequently this committee has been active in seeking representation of all interests in the area on a permanent planning organization, and in this effort is receiving the cooperation and assistance of the regional office and the Colorado State Planning Commission. The committee is also contemplating an intermountain area planning project similar to the Wasatch Front and Denver projects now under way.

Citizens of this intermountain area recently requested the assistance of the National Resources Planning Board and the Colorado State Planning Commission in making a study and report on the physical and economic situation of the area, and in October 1942 a consultant was assigned to the regional office to prepare an area analysis. The State planning commission is cooperating in the assembly and analysis of data, as are also local agencies in the area.

As one of its important functions the regional office has continued the administration of the work of the drainage basin committees for the upper Rio Grande, upper Arkansas, upper Missouri, middle Missouri, and Platte Basins. The work of the upper and middle Missouri and Platte committees is administered jointly by regions 6 and 7. In addition, region 7 cooperates with region 8 on the work of the Colorado drainage basin committee. Recent activities have been directed largely to the development of over-all basin plans—to the formulation in broad outlines of development plans for the best use and control of all of the water resources of the basin. The regional office has completed the preparation of the first stage water plan for the Upper Rio Grande Basin, including the Rio Puerco.

Of importance during the past 18 months has been the work of the Pecos River joint investigation and the completion of a final report. This investigation was

organized in the spring of 1939 as a cooperative undertaking of Federal, State, and local agencies under the general direction of the National Resources Planning Board through its Water Resources Committee, with a field staff directed from the region 7 office. Its purpose was to develop the needed factual information with respect to water supply, water uses and requirements, salinity, siltation, and floods, to serve primarily as the basis for a compact between the States of New Mexico and Texas, providing for an equitable division of Pecos River waters and, secondly, as the foundation for remedial measures to control salinity, erosion, silting, and floods. With the completion of the report, provision has been made by the two States for compact commissioners and negotiations have been opened with indications favorable to the ultimate consummation of an interstate compact.

Denver Metropolitan Planning Project

This undertaking is another of the series of intensive area planning projects which the Board has launched. In the Denver metropolitan area an outstanding problem is the expansion of manufacturing industries and the greater industrialization brought about by the war. Prior to the defense and war activities the Denver area was essentially a commercial, recreational, and trade center—a focal point for trade, distribution, and finance for a large territory.

The potentialities for an industrial center are present, but careful planning and study are needed so that the post-war opportunities and required adjustments will be channelized into lines that are economically possible.

The project has been set up as a cooperative endeavor of the Denver Planning Commission, the Colorado State Planning Commission, the University of Denver, and the regional office of the National Resources Planning Board, with active participation by many other Federal, State, and local agencies and individuals in the area. It is under the general direction of a steering committee of 13 members, widely representative of the interests of the area. The director of the bureau of business and social research of the University of Denver is chairman of this group and also director of the planning project. A working staff, comprising the director, the director of the Denver Planning Commission, the director of the State planning commission, and staff members of the regional office, coordinates and carries out the work of the project.

An "objective outline" for the project as of October 15, 1942, includes the following principal elements: Employment and unemployment; industrial development; electric power, water supplies, sewerage, flood control, and pollution abatement; land use, commercial; transportation; housing; fiscal and administrative; social and welfare programs. Subsections under each of these provide for a study of present development, trends, desirable adjustments, future potentialities, and the recommended program. On most of these subjects agreements have been reached and commitments made covering the specific items of work to be done by the various agencies and individuals participating.

The first portion of the war-plant conversion study covering the physical aspects has already been finished. Consideration is being given to the possible products for the converted industries, after which detailed analyses and cost estimates for the conversion of each plant will be made. Most of the data has been collected for the section dealing with lumber, mining, and related industries. In the electric-power field, the assistance of the Federal Power Commission has been obtained in making a study of power markets.

Agencies participating in water-supply studies include the Denver Board of Water Commissioners, the Bureau of Reclamation, the office of the State sanitary engineer, the Denver district office of the Corps of Engineers, and the Colorado Water Conservation Board.

Region 8—Pacific Southwest

Regional Office

The regional office in Berkeley, Calif., prepared the Pacific Southwest regional development plan, to be included in the National Resources Planning Board publication *Regional Resources Development, 1942*. This covers in some detail proposals for water development in the Colorado River Basin, the Great Basin, the California Central Valley, and the Southern California Coastal Basin. Further proposals were made for the development of comprehensive land-use plans and a regional transportation and recreation system. In the case of the latter, recommendations were made for the establishment of regional parks and parkways accessible from the metropolitan areas.

Much of the work of the regional office in the last year has been in cooperation with other agencies in working out programs for the solution of problems created by the war. Members of the staff are on the Federal Regional Advisory Council, which has been doing special work in connection with the problem of evacuation of enemy aliens from areas on the Pacific coast. The staff made a report on recent population changes in California and Nevada, based on the number of applications received for war-ration books. To meet the threat of incendiary activity on the part of the enemy, the regional office worked with members of the United States Forest Service, the California Forest and Range Experiment Station, and the California State Chamber of Commerce on *Fire Hazards and Forests of the Pacific Southwest*. Up to the summer of 1942 the office was also engaged in local defense area planning activities, consultants having been sent out to various

areas in the region which were particularly affected by wartime changes.

In addition to this work on the immediate problems facing the four States in the Pacific Southwest, the regional office continued to work on its long-range program. The water consultants started first stage basin plans for the drainage basins in the regions and progress was made with other agencies in the Santa Barbara Santa Ynez cooperative investigations. Assistance was given to the Los Angeles Planning Commission in its work on the redevelopment of deteriorated residential areas.

One of the most significant of these long-range activities was the development of regional planning in the San Francisco Bay area. With the encouragement of the regional office, the San Francisco Bay Regional Development Council has been set up, with three subcommittees for the north bay, east bay, and the peninsular sections, to investigate the problems in its own district. A statement of objectives and constitution and bylaws have already been drawn up.

Regional-office assistance was also extended to the California State Planning Board in its investigation of the Los Angeles and San Diego industrial areas. A detailed report, prepared jointly, has been summarized in a report issued in November 1942 by the California State Planning Board entitled, *An Economic and Industrial Survey of the Los Angeles and San Diego Areas.*

Two of the four Pacific Southwest States—California and Nevada—are preparing programs for post-war construction of needed capital improvements, under the direction of the State planning boards. A number of county and city programming reports are being completed with the assistance of the regional office.

Wasatch Front Planning Project

At the beginning of the year a consultant was assigned to the Salt Lake-Ogden-Provo area to work with the regional office of the Office of Defense Health and Welfare Services in gathering the data for a joint survey. It was found that there was active local interest in planning and, as a result, the so-called Wasatch front area was selected for an intensive area planning project. In August a meeting was held between members of the Utah State Publicity and Industrial Development Commission, the regional office of the Office of Defense Health and Welfare Services, and a cooperative program was set up to consider the effects of war expansion on the Ogden-Salt Lake-Provo area and to prepare plans for wartime and post-war readjustments. The Utah State Publicity and Industrial Development Commission has assumed the sponsorship of the program, and will work with the cooperation of the National Resources Planning Board and State and Federal agencies.

The report will be in six sections: That on economic analysis is under the directorship of Professor Mahoney of the University of Utah; the sections on water development and transportation are in charge of a member of the Utah State Publicity and Industrial Development Commission; that on minerals is under the regional director of the Bureau of Mines; and community facilities are under the regional office of the Office of Defense Health and Welfare Services. The final section of the report will be the Salt Lake City urban project, demonstrating the method of progressive urban planning developed by the National Resources Planning Board.

At the present time studies in the economic and industrial development sections are well under way. The basic work for the community facilities section, reports made by the Office of Defense Health and Welfare Services, is nearing completion with only the survey report on Salt Lake County to be finished. The full cooperation of the Salt Lake City Planning Commission has been obtained for this demonstration urban planning project and a consultant is now working in the area. Base maps have been prepared and the immediate and long-range objectives of the project have been agreed on. The section on water development is progressing, with particular reference to war requirements for water supply. The region 8 office is doing much to aid in obtaining basic data and in providing technical services where they are needed.

Region 9—Pacific Northwest

Pacific Northwest Regional Planning Commission

Among the regions of the United States, the Pacific Northwest is one of the most clearly knit together by physiographic, economic, and cultural ties. This is one factor which explains the great activity there over a number of years in planning on a regional basis. The over-all plan for the region, *Development of Resources and of Economic Opportunity in the Pacific Northwest,* was submitted to the Board in late 1941 by the Pacific Northwest Regional Planning Commission. This report brings up to date and amplifies the commission's earlier regional planning studies made in 1935 and analyzes the four main factors that affect the economic life of the region.

These include recent migratory influxes of population; land in the region potentially available for agricultural use through irrigation, drainage, and clearing; trends and possibilities in the growth of Pacific Northwest industries; program of basic internal improvements for strengthening the regional economy. The land inventory was done jointly with the Bureau of Agricultural Economics. Containing detailed maps, locating each project judged to be worthy of consideration, the

report is intended to give a preview to a plan for potential post-war readjustment and development. As a long-range plan, it will be kept up to date and revised to meet changes as they occur.

As an aid in the measurement of the regional market for commodities now shipped into the Pacific Northwest from other regions, and also as a means for revealing the relative position of various industries in the present economy of the region, the commission has sponsored publication of *The External Trade of the Pacific Northwest, 1934–39*. This report, which assembles material resulting from earlier research, should be useful in estimating the size of post-war internal markets.

The deepest concern of the regional planning commission has been with war and post-war readjustments and developments. In these fields it has endeavored to further the techniques of area analyses, to special area planning projects, of urban planning, of public works planning and programming, as fundamental and effective means to these ends. It has also stimulated planning in major fields, such as industrial conversion and development, mineral exploration, and mineral utilization.

In all of these activities its primary role has been to provide a meeting ground for discussion and coordination of planning among the various Federal, State, and civic agencies concerned.

Regional Office

Public works programming has been sponsored both by the regional commission and the regional office. After the programming and financial analyses had been completed for Idaho, Oregon, and Montana in 1941, the regional-office staff worked with the Washington State Planning Council on a report for this State. In connection with urban planning for Tacoma, the regional office aided in public works programming. Suspension of the Public Work Reserve project has left a serious gap similar to that in other regions, in State and local programming for post-war construction of public works.

This regional office cooperated with the Industrial Section of the Board in preparing *Industrial Development in the Pacific Northwest*, which is now being published. At this subnational level, the studies of industrial conversion are with particular reference to key industries in the region, such as light metals, iron and steel, chemicals, shipbuilding, and aircraft. It also prepared memoranda on Alaska overland transportation in cooperation with the region 10 office. Information, which was submitted to the Joint Economic Committee for Canada and the United States, helped to initiate the North Pacific planning project.

In cooperation with the central-office staff, the regional office has continued to observe current economic trends in the region and has submitted quarterly confidential reports on the subject. Observations cover changes in war-industry employment, and also critical situations with respect to labor or materials in such industries as those dealing with mineral, lumber, and fuel production. Throughout the recent regional reports increased emphasis has been placed on graphic presentation. This is especially true of work done in connection with the Puget Sound, Pend Oreille, and Tacoma projects. The North Pacific planning project, being carried on with the Joint Economic Committee of Canada and the United States, will also probably make full use of graphic presentation.

The shifting of the Alaska regional office to Portland for the duration of the war has enabled the two offices to cooperate more effectively with the Army, Defense Transportation, and other offices in studying the Alaskan transportation routes. Cooperation with ODHWS, NHA, and FWA has been maintained in connection with the work these organizations are doing for war-affected communities. State and local organizations have received help, particularly in connection with public works programming and war adjustment. The regional office was able to work directly with war-affected communities up to the middle of 1942.

The staff cooperated with the Puget Sound Regional Planning Commission in the Puget Sound area planning project. It aided in studies of the central Washington area affected by the Columbia Basin (Grand Coulee) project under the Bureau of Reclamation. In the Tacoma progressive urban planning demonstration, the regional office has supplied economic and statistical information as well as a Board technician to work directly with the project. In connection with post-war studies, the regional office and the regional commission have cooperated with the Pacific Northwest Committee for Post-War Planning of the Department of Agriculture. Both the regional office and the regional commission have cooperated with the Pacific Northwest Council of Education, Planning, and Public Administration, particularly educational and research fields, and in industrial and economic surveys of the region.

As with the regional planning commission, the primary concerns of the regional office during the past year have been with the adjustments of the region and of defense areas to the war economy and with plans and measures for post-war readjustment and reconstruction. In these closely related activities the regional office has tried to maintain close contact with Federal and State planning agencies. Members of the staff have also addressed and consulted with many nonofficial groups interested in post-war problems.

Puget Sound Planning Project

This area has a combination of conversion and development problems. The tremendous expansion of the aircraft plants, shipbuilding industry, and navy yard are the principal examples. The aluminum industry and war-industry plants are other potential problems in post-war conversion. The probable passage of some Columbia Power Authority bill raises a question as to the role of power in the future of the area's economy. The older forest industries and the immigration prior to the war of large numbers of people without means of support, provide a special background. The relation of the ports in this area to the development of Alaska and eastern trade must also be considered.

On August 13, 1942, the Puget Sound Regional Planning Commission met to formulate a program for an intensive planning project in this region. The executive board was designated as the policy or steering committee for the project. In this enterprise, the Washington State Planning Council, the NRPB, and other agencies are furnishing assistance.

At a meeting on September 5 it was decided that basic plans for population, land, water, transportation, etc., would be prepared by committees of the PSRPC and other experts. Using a detailed outline of the report which had been prepared, assignments of work were made. It is expected that the final report will feature a graphic presentation of plans, on maps, insofar as this is practicable. Economic conditions and problems, directions of readjustment, and plans for development will be included. The assembly of the necessary data, and an analysis of some of the problems, are now in progress.

Also at the area level, the staff is cooperating with State and local planning agencies in a quick area analysis, along lines outlined in the recently issued NRPB Technical Paper No. 6, *Area Analysis—A Method of Public Works Planning.* The area under consideration is a portion of northern Idaho affected principally by the establishment of a naval training station, but also over a longer period by changes in the economy with regard to forests and land use.

Region 10—Alaska

Regional Office

The region 10 office was established at Juneau, Alaska, in July of 1941, just as Alaska was beginning to assume a new and vitally important role in national affairs. Most of the work of the office has been closely related to the war effort and its earlier defense phase. In the late summer of 1942, headquarters for the region 10 office were moved to Portland, Oreg.

Involved in the shipping and supply problem is the ability of Alaska farms to produce locally some of the food needed to maintain the military and civilian population. In April 1942, with the assistance of the Alaska Agricultural Extension and Experiment Service, the region 10 office made a study of the problems involved in increasing farm production, writing a report which was submitted to government agencies and to the military. Partly as a result of these studies, the Department of Agriculture extended its food for victory loans program to Alaska.

Many agencies and individuals have at one time or another undertaken studies of agriculture in Alaska. To avoid unnecessary duplication of effort in such work and acquaint new researchers with what has already been done in the field, the region 10 office compiled a bibliography, with abstracts, of all known published references to agriculture in Alaska. This study is now being put in final form for mimeographing.

Within a few days after the Pearl Harbor attack, the office began a comprehensive survey of Alaska's supply of and requirements for food, fuel, drugs, and other essentials, which wartime curbing of shipping schedules was expected to affect. This study, made at the request of the Governor, resulted in a series of reports to the Governor, military and naval authorities, and civilian agencies concerned with various phases of the supply problem. The critical shipping situation, fear of which led to the survey being made, later materialized. Data compiled by the office were used in helping to meet the problems which resulted.

Consultant services to the acting Governor in early phases of price and rent control investigation, before organization of an OPA staff in Alaska, were provided by the region 10 office, which made several surveys of price trends in Alaskan communities. This material was turned over to the OPA Alaskan office as soon as it was set up.

At the request of the Division of Administrative Management of the Bureau of the Budget the office provided consulting service in connection with drafting Executive Order No. 9181 creating an Alaskan War Council to coordinate military and civilian activities in the Territory.

For Army General Headquarters, the office with cooperation of the United States Forest Service prepared an inventory of electric power-generating facilities in Alaska, showing location, size, and type of plants and existing facilities for interconnections. The report also listed hydroelectric sites in Alaska capable of ready development.

At the request of the commandant of the Thirteenth Naval District, the office gathered from 291 inhabited places in Alaska certain information as to population and available means of access and exit. The information, not available from census reports or other sources, was needed in case wholesale evacuation of Alaska or

any part of Alaska should become necessary. The requested data were in the hands of the Navy and Army commands in Alaska before the Japanese attack on the western Aleutians did necessitate evacuation of certain localities.

When the freight and passenger rates of all steamship lines serving Alaska were increased 45 percent by an emergency surcharge imposed a month after the declaration of war, the Alaska regional office prepared information and testimony for the Maritime Commission pointing out the unfavorable effects of the increase upon the Alaska civilian economy and price structure. Other information in connection with the rate hearing was prepared at the request of the OPA, ODT, Bureau of Labor Statistics, and the Governor of Alaska. As a result of hearings called by the Maritime Commission the carriers were ordered to reduce their tariffs substantially and to cut the surcharge from 45 percent to 25 and 20 percent in accordance with risk involved.

Resulting in part from the attention given Alaska shipping problems in connection with the rate question, the Chairman of the Board was instrumental in calling the attention of the responsible authorities to the coastwise shipping restrictions which made it impossible for travelers and shippers to use Canadian ships between Alaska ports or between United States and Alaska ports. The restrictions were suspended for the duration. This helped somewhat to ease the southeast Alaska shipping situation by making it possible to utilize the service of several Canadian carriers which were making the run regularly in order to service the Yukon Territory. The office proposed, in its regional development plan, *Post-War Economic Development of Alaska*, dated December 1941, and in a memorandum prepared even earlier, that a military railroad be built connecting Fairbanks, Alaska, with the continental rail network at Prince George, British Columbia. Early in April, after making their own study of the North Pacific military transportation problem in consultation with the chairman of the board, the military authorities initiated a survey of the railroad route. For this survey, at the request of the division engineer, the region 10 office prepared memoranda on economic factors involved in location, construction, and operation of the railroad. The Chairman of the National Resources Planning Board in June 1942 traveled by air over the railroad and highway routes in company with the counselors of regions 9 and 10. At the request of the commanding general, Services of Supply, United States Army, the Board's staff, in cooperation with the Office of Defense Transportation, compiled and analyzed information on possible sources of relay rail for the proposed trans-Canada-Alaska Railway.

The regional office participated actively with the Federal Works Agency in planning a program of community facilities in Alaska made necessary by defense and war developments. The office extended consultant service to a number of Alaska cities lacking both facilities and technical staff to plan necessary construction. The office reviewed and made recommendations on all Alaska applications to the FWA for community facilities grants.

Technical assistance was extended early in 1942 to the cities of Sitka and Anchorage in planning and budgeting programs of needed capital improvements. The task in each city involved a survey and analysis of fiscal conditions and future prospects. Reports on the programming work were prepared in the regional office and published in mimeograph form.

Assistance to the city and important port of Seward in problems of reconstruction following a fire of November 23, 1941, which destroyed most of the business section, was provided by the region 10 office. A preliminary report was made by the office at the request of the Disaster Loan Corporation for use in considering applications for loans to rebuild the destroyed businesses. These loans were subsequently approved, and some reconstruction has been completed.

The regional office prepared a report late in 1941 on proposed lines of post-war endeavor to advance the development of Alaska. This report, also published separately, became a part of the National Resources Planning Board's *Regional Resources Development Report for 1942*.

Statistics on Alaska's external trade for the 10-year period 1931–40 have been compiled by the regional office to give an exact picture of the Territory's trade position.

North Pacific Planning Project

In June of 1942 the Chairman and two staff members of the National Resources Planning Board made a survey trip through northwestern Canada to study the various overland approaches to Alaska and the projects being constructed in that area for military purposes. Memoranda and suggestions based on this trip were brought to the attention of the joint economic committees of Canada and the United States. After considering the resources, problems, and possibilities of the region, these committees decided to sponsor a joint study now known as the North Pacific planning project.

This international planning project will embrace Alaska, the western Provinces and Territories of Canada, and the Pacific Northwest region of the United States. After systematic study of the region's problems, recommendations will be made to the respective governments for collaborative agreements to foster economic development. By informal interagency agreement the National Resources Planning Board is contributing services from its region 9 and region 10 staffs,

both operating as one office in Portland, Oreg., for the duration of the war. With the counselor of region 10 designated as director, this latter group is devoting practically full time to the project.

In the 75 years since Alaska was acquired it has been an economic island almost completely blocked off from its natural economic affiliations with British Columbia and the Yukon Territory. Western Canada, on the other hand, has been retarded by lack of north-south transportation and by political borders which block its natural geographic and economic affiliations with the areas to the west and with the United States.

The conditions for international cooperation in this North Pacific area are extremely favorable. There is good will and understanding on both sides. Active collaboration in the matter of fisheries conservation and regulation has been in progress for several years. Air transport is making Americans more conscious of the undeveloped territory that lies between the States and Alaska. War emergency developments, of which the Alaska military highway is only one, have progressed rapidly. Economic development could, and should, proceed concurrently with the strengthening of the security of the North Pacific region.

Region 11—Puerto Rico and the Virgin Islands

Regional Office

In Puerto Rico and even in the Virgin Islands basic planning has been badly needed for many years. On the former Islands there has been a steady and rapid increase in population to the present figure of 2,000,000. This has become a serious problem for a mountainous area only as large as Connecticut. Furthermore, Puerto Rico is 1,000 miles from the rest of the United States and most of its agricultural land faces severe competition both from the more fertile lands in other, newer areas of the Caribbean and even from other sections of the United States.

Yet, until 1941, there had unfortunately not been established any permanent State or local planning agency in either Puerto Rico or the Virgin Islands to give continuing attention to the solution of these problems and possessing sufficient powers to make its suggestions effective. In August 1942 the act creating the Puerto Rico Planning, Urbanizing and Zoning Board became effective. During recent months conferences have been held in the Virgin Islands looking toward the final preparation and subsequent maintenance of a development plan for their resources and needs.

The new Puerto Rican board, a specialized institution, is only one part of the broader planning movement which has taken place in Puerto Rico. This movement is evident on three "fronts"; socioeconomic, physical, and administrative. On all three, the basic objective is the relief of poverty through the fuller development of all resources.

The need to advance along all three fronts of planning was perhaps not clearly recognized until recent years. New programs designed to attain their solutions have been developed. Although the region 11 office had a share in only some of these programs, an outline of all the advances needs to be made if the planning progress of the islands—and particularly of Puerto Rico—is to be envisaged as a whole. Social-economic planning, physical land use planning, and administrative planning are the three key planning fronts irrespective of the agencies administratively responsible for their execution.

This report is a survey of that performance during the last 11 months from November 1941. While there are parts in which the San Juan office of the National Resources Planning Board was particularly involved, important activities of other groups are mentioned, for the planning function is government in an attribute of many agencies.

Two principal steps in the implementation of overall planning in the area were the organization of the San Juan office of the National Resources Planning Board and the establishment of the Puerto Rico Planning, Urbanizing, and Zoning Board. The former was set up at the request of the Governor and began functioning in the middle of December 1941. But even before its organization, the National Resources Planning Board made a consultant available to the Insular Government of Puerto Rico to help draft a planning bill for that island. This bill sets up a Puerto Rico planning board, giving it jurisdiction over the entire island. The board is, moreover, authorized to delegate its powers to local and municipal boards if it saw fit. This constitutes the only instance in the United States where a State board has been given power to plan local communities and to carry out such plans through zoning, mapping, and subdivision control. The Board has the power to disapprove local improvements if not in accordance with the centrally adopted master plan for the locality involved. Agricultural areas were excluded from the zoning provisions and provisions were made for legislative approval of urban zoning regulations. The bill was passed and become effective August 10, 1942.

During these first months in 1942 the San Juan office collected material and maps which could be turned over to the new board when it was organized. It prepared analyses of the law and related legislation and developed a master plan of major highways for the San Juan metropolitan area. Toward the same end, the National Resources Planning Board in December arranged for several consultants to visit Puerto Rico

and make an exploratory survey of the island's planning problems for the insular government. Their report, "An Interim Program of Planning Studies for the Physical Development of Puerto Rico" was issued in January, but, because of its information on military improvements, was not given general circulation.

Other agencies besides the Puerto Rico Planning Board were also established by the insular government during the last year to work toward the economic development of the island. The Puerto Rico Industrial Development Co. was set up for the purpose of "discovering and developing to the fullest possible extent the human and economic resources of the island." The company should prove of great value in diversifying and expanding the economy of the islands.

In order to encourage private and public industrial expansion the charter of a Puerto Rico development bank was authorized to be prepared allowing it to make capital, as distinct from short-term loans. The Insular General Supplies Administration was also created for the purpose of stabilizing prices, securing adequate production of stable products, preventing a post-war collapse in values, stimulating and developing new sources of employment. The San Juan field office cooperated with this agency in developing a definite government marketing program for the island's food crops. Within the last few months, however, responsibility for most of its functions has been transferred to such Federal agencies as OPA, AMA, and (for regulating transportation) ODT.

At least three other insular agencies responsible for planning the island's socioeconomic problems were also set up: The Land Authority and the Minimum Wage Board in 1941 and the Institute of Tropical Agriculture in 1942. The chairman of the Puerto Rico Planning Board was a member of the important Land Authority whose purposes are: To put an end to large landed corporate estates, to create proportional profit farms so that wealth may be diffused without the parcelling of the land, to allow agricultural laborers to own land for their own homes.

These new insular agencies each have vital planning functions: the Industrial Development Co. and Bank in the field of industry, the General Supplies Administration in the field of prices and distribution, the Land Authority in the field of agriculture, and the Minimum Wage Board, in the field of labor. They are important in Puerto Rico because it is their programs which will some day have to be brought into intelligible reference one to another, all contribute to the general purpose of the Planning Board itself—"a coordinated, adjusted, and economic development of Puerto Rico."

In the field of more direct physical planning, the existing Puerto Rico Water Resources Authority was given, contingent on certain conditions, jurisdiction over all water supplies on the island. A new Insular Sewerage Service was set up with similar jurisdiction over all sewerage systems. A Puerto Rico Transportation Authority has been established to develop all types of intra- and extra-insular transportation facilities and "to make available the benefits thereof in the widest economic manner, thereby promoting the general welfare and increasing commerce and prosperity." And, finally, the Insular Department of the Interior has just been given a substantial appropriation with which to prepare advance and detailed construction plans and specifications for post-war projects. The programs of all these new agencies not only impinge on general planning but are island-wide, a further justification for giving the Puerto Rico Planning Board unusual powers for a state agency.

During this same period the insular government also strengthened its administrative planning by creating in the office of the Governor a Bureau of the Budget and an Office of Statistics. The former was included as Title II of the Planning Act and its provisions were suggested by the San Juan office of the NRPB. This legislation provides for the closest cooperation in developing a long-term financial program of both capital and operating expenditures between the Planning Board and the Bureau of the Budget.

The field office has also cooperated with the Puerto Rican Department of the United States Army in compiling information relative to insular and Federal civilian agencies operating in Puerto Rico and in analyzing these data for possible emergency management.

In addition to the assistance offered by the San Juan office in the promotion of planning in all these spheres, the office was instrumental in establishing a Puerto Rico Agricultural Planning Committee, corresponding to the usual State Land Use Planning Committee, and a Puerto Rico Water Committee, corresponding to the usual Drainage Basin Committee.

The principal objective of the office has been the planning of the island's resources for maximum benefit to the people. This approach has led to a determination of goals which have been incorporated in a study of minimum standards of food, clothing, and housing; studies of population, water, and land; and plans to utilize resources so as to attain as closely as possible these minimum standards.

Based on these reports and upon numerous informal conferences the San Juan office is preparing a development plan for both Puerto Rico and the Virgin Islands which will summarize in a single document the problems and proposals for their solutions which have so far been scattered, without any point of assembly. It is hoped that the plan for Puerto Rico will be revised when the Puerto Rico Planning Board has been able to formulate and state its own thinking, and that in the Virgin Islands.

The Caribbean Region

The story of planning in Puerto Rico and the Virgin Islands during the past 11 months gives a brief picture of the problems and possibilities of this part of the United States. But these islands, in addition to being part of our Republic, are an integral portion of the Caribbean region; in fact, they can scarcely be considered separately from it. St. Thomas, for instance, is more closely tied to the English Virgin Islands than to St. Croix. Puerto Rico has long had close cultural and commercial relationships with the Dominican Republic. Climate and geography are two important factors which account for strong similarities in the human problems throughout the islands and peripherial areas of the Caribbean, regardless of race or flag.

Planning in this region should be generally expanded. And it must be integrated in terms of the entire region if these small countries are to become a group of economic and social neighbors in a better world economy after the war.

Even now, without the benefit of closer arrangements for solving mutual problems, each island has found that it can profitably learn from the others. The advantage of exchanging information on subjects of importance such as shipping, local industries, and local food production and distribution are immediately obvious in time of war. The need for informative studies dealing with long-term relations between the economies of the islands is less conspicuous but no less important. To assist in long-range planning for the post-war future of the region, other basic studies of the relative standards of living, population trends, and resource potentialities should be completed.

Although the State Department, the Office of Inter-American Affairs, and the Board of Economic Warfare were interested in the Caribbean before 1942, they have been concerned with specialized problems. The Governments of the United States and Great Britain, therefore, recently created a six-man Anglo-American Caribbean Commission under the joint chairmanship of Mr. Charles Taussig and Sir Frank Stockdale, to study from a broad point of view the underlying problems of at least the American and British islands in the Caribbean, and British Guiana on the South American Continent. The Governor of Puerto Rico and the Chief of the Caribbean office of the State Department completed the American section of this group. The manager of the San Juan office of the NRPB accompanied, as technical planning consultant, the Anglo-American Caribbean Commission on its initial visit to the British possessions of Trinidad, British Guiana, Barbados, St. Lucia, Antigua, and Jamaica, and was present at the Jamaica Anglo-American Caribbean Supply Conference in May 1942.

Summary

The foregoing account of recent planning activities in a regional and areal basis illustrates the rapid development of current thinking in relation to problems of tomorrow. The need for, and the desirability of, comprehensive regional development as part of our national development has become more apparent over the last decades as our fund of information has increased.

We now recognize that national growth can no longer be left to chance. All policies and programs in the various sections of the country can be helped by thinking ahead to meet the needs and to realize the potentialities of each area. The interaction of economic and cultural forces against a background of physical resources is more readily understood and converted to practical application with the aid of a regional concept. Without such a concept, development and expansion of any part of our country is without proper direction. With it, each area of development contributes to the advance of the nation as a whole.

The fund of experience we had been accumulating in regional planning before the war has provided us with a foundation of basic principles upon which resource development can be based. The present world conflict is making us implement our ideas of development at an increasing tempo and on a huge scale, teaching us valuable methods of cooperaton, and the necessity for full coordinated use of all our resources. The period of peace that will come offers us our greatest opportunity for combining our principles and our newly found methods to create for people in regions throughout the world a greater development than we have ever known.

STATE PLANNING

Introduction

The work done by the State planning agencies during the defense and war years, together with their proposed programs, mark further significant evolution of State planning. When State planning boards were first established in 1934, their initial concern was primarily with the collection of basic data and with physical planning. In some States, development of physical resources is still the major State planning activity, particularly where the State economy is based on land and adequate water. However, the planning boards of the more industrialized, heavily populated States early found themselves face to face with serious economic and social problems and they now deal with questions of health, welfare, housing, education, recreation, employment, and industrial location as inseparable from questions of physical resources development.

As government has assumed a constantly increasing responsibility with regard to the prosperity and welfare of the people, a large share of the new responsibility has fallen to the State governments. This has necessarily increased the scope of State planning and focused the work of State planning agencies on economic development of State resources for improved living standards.[5]

Our national defense and war programs have brought to the States many serious problems of maximum use of resources for the all-out war effort. Their factories have been converted to war production; their farms are called upon to produce more with less manpower. Expansion of industrial centers, creation of large new war industries in small towns, in rural areas or on the periphery of urban communities, and establishment of military camps and bases cause conditions of extreme congestion in many areas which individual communities are unable to cope with and which call for State as well as Federal action. While war-production schedules demand increasing labor supply for these centers, new community facilities—housing, schools, hospitals, water supply, transportation, sewage-disposal facilities, etc.—have to be provided for incoming war workers. Superimposed upon these tasks are the necessary measures of civilian defense.

The State planning boards are meeting this wartime challenge with invaluable facts and figures on State resources, and with staff assistance in planning the solution of pressing day-to-day problems. Their long-range studies provide a useful basis for planning in the war emergency—for locating war plants and military establishments, supplying and transporting labor and raw materials, and guiding wartime programs so that they will be as beneficial as possible to the post-war development of the State. Many boards find that their long-term projects neatly merge with present problems in day-to-day planning.

The position of the State planning boards in their State governments has been strengthened as they have demonstrated their usefulness in the war emergency. Early in the national-defense program, the Council of National Defense, in recommending the establishment of State defense councils, suggested to the governors that the State planning boards become the research and planning arm of these organizations. Many States followed this procedure, some making the director of the State planning board the executive officer of the State defense council. As a consequence of their general usefulness, the appropriations of State planning boards have been increased considerably during the war period, from $762,590 in 1940 to $1,026,063 in 1942.

Four distinct trends are becoming more pronounced in the work of the State planning boards:

(1) *Growing emphasis on interagency cooperation.*—Our form of government, with its three levels—local, State, and Federal—and the multiplicity of bureaus and departments at each level, makes interagency cooperation a prerequisite to effective planning. There are few major problems with which State governments are concerned that do not also have a Federal and a local interest requiring for their solution knowledge of conditions in a wide range of related fields. State planning boards have, from the outset of their work, sought the cooperation of other agencies in their activities. The practice grew steadily through interdepartmental committees; conferences; contractual arrangements, such as those between the Tennessee Valley Authority and the Tennessee State Planning Commission; area committees, such as the drainage basin committees; and occasional joint studies. The national emergency brought not only pressing problems but also the patriotic urge and necessity to cooperate in planning their immediate solution. Joint studies and plan preparation by local, State, and Federal agencies consequently increased manifold, particularly in dealing with the congestion of war production and military centers. Based on this experience, cooperative planning is developing rapidly as a technique of preparing programs for post-war readjustments and development of these areas. Located between the Federal and local agencies, the State planning boards have shown themselves well adapted to taking the lead in cooperative planning projects, as did the New Hampshire State Planning and Development Commission in the preparation of war-

[5] Previous publications of the National Resources Planning Board: *State Planning*, 1935 and 1936; *The Future of State Planning*, 1938; *Progress Reports*, 1936 (p. 19); 1937; 1938 (pp. 5–9); 1939 (pp. 24–122); 1941 (pp. 64–72); and *State Planning*, June 1942 have traced the growth of State planning activities and the evolution of State planning boards as arms of planning management for the State governments.

time plans for the Portsmouth-Kittery area and the Utah State Publicity and Industrial Development Commission in preparing post-war plans for the Salt Lake-Provo-Ogden area.

(2) *Coordination of State research and planning.*—Increase of planning by State departments and local communities resulting from the war effort has added to the responsibility of the State planning boards, as central State planning agencies, for coordinating State research and planning in order that well-balanced State programs might be developed. More frequently, the State planning boards are relying upon the colleges, universities, and technicians in the operating departments to gather and analyze basic data. The institutions of higher education have shown an increasing interest in research relating to the wartime and post-war problems with which State planning boards are concerned as a means of participating more directly in the war effort. This frees the staff of the State planning board from research work and permits them to devote more time to coordination and plan preparation. It seems likely that the "farming out" of research tasks will be continued by State planning boards in their work on post-war problems. Already many boards have set up post-war planning committees whose chief concern is with the stimulation of research on post-war problems and the coordination of post-war planning being done throughout the States in terms of a unified program for post-war readjustment and long-range objectives of State development.

(3) *Operation as a staff arm of the Governor.*—The tendency of State planning boards to operate as staff arms of planning management for the chief executives of the States is becoming more pronounced during the war period. As the Governors have taken on emergency powers and responsibilities they have had greater need for this type of service. The staff work they have requested has ranged all the way from assistance in the location of war industries and the placing of war contracts and "trouble shooting" in defense areas to doing the staff work of State defense councils and supervising the preparation of public-work programs as a "shelf" of post-war public works. While acting as the Governor's planning staff, State planning boards have had an excellent opportunity to effectuate in State policy and administration the conclusions and recommendations of their long-range studies.

(4) *Preparation of action plans and programs.*—Wartime necessities require quick action by State governments in the preparation of plans and programs to deal with many emergency problems. Operations cannot wait upon the initiation and completion of basic studies and research, but must be based upon research that has been completed and upon information that can be rapidly assembled. The vast amount of research and basic data collected on the resources of the States by the State planning agencies in pre-war years is proving invaluable, and they are called upon to utilize it in the preparation of action programs in cooperation with other State, local, and Federal agencies. A shift in State planning work from research to plan preparation is accordingly taking place. In many fields studies and basic research by numerous public and private agencies have been so extensive during the past decade that the assembly of this information to make preliminary plans is essential as a guide to where new studies and research are needed. At the same time, the experience of putting the results of research directly into action programs through plan preparation gives a more specific direction to research by State agencies and educational institutions. The tendency of State planning boards to undertake an increasing number of projects for the preparation of specific action plans is now being carried over to their post-war planning work.

Status of State Planning Agencies

In the past year and a half, few changes in the statutory basis of State planning agencies have taken place, probably due in part to the State planning boards having become a permanent and integral part of State government. Today, 37 State planning bodies function by statutory enactment on a continuing basis, 5 are appointed by executive order of the Governor and 4 planning boards, for Alaska, Hawaii, Puerto Rico, and the District of Columbia, are established by acts of the Territorial legislatures or of the Congress.

The enactment of a law establishing a planning agency for Puerto Rico constitutes the major legislative change relating to planning at the State level of government during the past 18 months. In May 1942, Act 213, entitled the Puerto Rico Planning, Urbanizing, and Zoning Act, was passed by the Puerto Rican Legislature. This law provides for the creation of two of the executive's major staff agencies—the planning board and the bureau of the budget. The Puerto Rico Planning, Urbanizing, and Zoning Act contains provisions not only for a board of that name, but also for the establishment of a board of appeals, for the preparation of a water plan for the development of Puerto Rico, for zoning and land-use plans and regulations, and for subdivision regulation. According to the act, which became effective in August 1942, the board is composed of three full-time members appointed by the Governor of Puerto Rico with the advice and consent of the Puerto Rican Senate, for staggered 6-year terms. An annual budget of $100,000 is appropriated to the board.

The other legislative change affecting the status of a State planning board has been the incorporation of the duties and functions of the Boston Metropolitan District

Planning Commission into the Massachusetts State Planning Board.

The following table gives the trend of State planning appropriations in recent years:

Preliminary tabulation of State planning board appropriations, 1938–42

State	1938	1939	1940	1941	1942	Per capita expenditure, 1942
Alabama		$8,500	$10,000	[1] $10,000	[1] $35,000	$0.00353
Alaska	$7,500	10,000	10,000			
Arizona						
Arkansas	15,000	15,000	18,300	[2] 20,100	[2] 20,100	.01031
California	12,500	19,860	19,500	[3] 20,970	19,000	.00275
Colorado	23,750	32,753	19,500	19,171	[4] 21,271	.01894
Connecticut		30,000	60,000	80,000	[5] 75,000	.04388
Delaware [6]						
Dist. of Columbia	40,125	41,230	41,230	41,230	45,470	.06223
Florida	10,000	25,000	25,000	25,000	25,000	.01318
Georgia	15,000	15,000	15,000	15,000	20,500	.00656
Hawaii	17,500	20,000	25,500			
Idaho	14,175	7,500	7,500	750	750	.00143
Illinois	25,000	25,000	25,000	25,000	25,000	.00317
Indiana	20,070	1,750	1,750	1,250	1,250	.00036
Iowa	25,000	(7)				
Kansas	15,000			[8] 2,750	[8] 2,750	.00127
Kentucky		5,000	5,000			
Louisiana	25,000	25,000	30,000	30,000	[9] 20,000	.00846
Maine [7]						
Maryland	3,000	10,000	10,000	9,900	9,900	.00544
Massachusetts	44,000	42,400	42,800	[10] 54,510	([10])	.01582
Michigan	25,000			29,000	29,000	.00552
Minnesota		26,000	13,000	24,000	21,700	.00777
Mississippi	20,000	20,000	25,000	25,000	25,000	.01145
Missouri	5,000	5,000	5,000	5,000	5,000	.00132
Montana		10,000	10,000	[11] 15,000	10,000	.01787
Nebraska	23,000	12,250	12,500	(7)		
Nevada	500	500	500	500	[12] 500	.00454
New Hampshire	24,914	24,414	27,000	[12] 29,172	[14] 33,422	.06790
New Jersey	10,500	20,000	22,500	16,870	16,120	.00387
New Mexico		7,000	7,000	7,000	7,000	.01316
New York	46,650	25,000	[15] 25,000	41,500	50,900	.00378
North Carolina	7,500	5,200				
North Dakota	10,000					
Ohio [7]						
Oklahoma	35,000	5,750	5,000	10,000	10,000	.00449
Oregon	15,000	10,500	5,000	7,500	7,500	.00688
Pennsylvania	62,500	54,000	54,000	56,000	64,000	.00646
Puerto Rico					100,000	.05346
Rhode Island	5,000	5,000	13,010	12,600	13,010	.01824
South Carolina	12,500	6,000	7,500	[16] 7,000	10,600	.00558
South Dakota	5,000					
Tennessee	18,500	25,000	25,000	[17] 55,000	40,000	.01371
Texas	33,000	(7)				
Utah	7,500	12,500	12,500		[18] 100,000	.18010
Vermont	12,000	12,000	12,000	13,800	13,500	.03758
Virginia	24,000	[19] 24,000	[19] 24,000	[20] 29,553	[21] 35,251	.01316
Washington	16,325	21,000	21,000	[22] 97,225	[22] 105,725	.06089
West Virginia				5,000	5,000	.00263
Wisconsin	50,000	65,000	65,000	50,000	50,000	.01594
Wyoming	5,000	5,000	5,000	[23] 4,915	[23] 4,915	.01960

[1] Does not include $40,000 for advertising funds.
[2] Does not include funds for administration of State Land Policy Act.
[3] Includes defense funds of $5,000 for support of State council of defense until its regular budget was available.
[4] Additional funds—$1,000 to $2,000, will probably be added from contributions of counties in which zoning work is going on.
[5] Somewhat more than half of the regular appropriation of $75,000 is available for the work of the research and planning division. The Governor has allocated $5,000 to the commission for special activity.
[6] No State planning board.
[7] State planning board abolished.
[8] $4,500 for biennium, 1941–43, for maintenance and travel expenses. $1,000 for biennium, 1941–43, for air-marking program.
[9] Of the sum allotted to the Louisiana Department of Public Works, approximately $20,000 is available to the State Planning Division.
[10] Under the fiscal period at present in effect in Massachusetts, funds of the State planning board amounting to $50,740 are available through November 30, 1942. Since the fiscal period of the State is currently being changed, the legislature has appropriated funds for the odd 7-month period, Dec. 1, 1942, to June 30, 1943 amounting to $27,964.
[11] Includes $5,000 for special study.
[12] This sum approximates the funds available to the State planning board in services and staff assistance provided to the board by the State highway department.
[13] Regular appropriation, $27,672, plus $1,500 for mineral survey.
[14] Includes $3,600 appropriated for minerals research.
[15] $15,000 additional funds made available for publishing and distributing the Industrial Directory of New York State.
[16] Appropriation, $6,000; Governor's contingent fund, $1,000. Costs of publication of reports and director's salary are being paid at present by the industrial development committee of the State defense council.
[17] Annual appropriation of $40,000. Approximately $2,350 available from Tennessee Valley Authority and $5,000 from Federal Housing Administration for the period Jan. 1–June 30, 1942.
[18] Law enacted 1941 created Publicity and Industrial Development Commission with planning functions.
[19] Does not include general education board grant.
[20] State legislature, $22,790; Governor's funds, $6,763; does not include general education board grant, $23,150.
[21] Does not include general education board grant of $23,750.
[22] Funds for biennium Apr. 1, 1941, to Mar. 31, 1943: For the council, $40,000; for Columbia Basin investigation, $4,450; special fund for industrial development, $150,000.
[23] Biennium 1941, 1943; administrative fund, $9,830; cooperative fund, $10,600.

NOTE.—In calculating per capita expenditures, population figures were taken from the 1940 census of population. The appropriation figures used in the calculations were those of the 1942 fiscal year.

Progress—18 Months, State War Planning

As pointed out above, the State planning boards have, from the beginning of the defense effort, taken a leading place in State defense activities. They were in a position to serve as sources of maps, centers of information on industries, population, transportation, and so forth, and as clearing houses for information prepared by other agencies. Thus, the designation of many State planning boards as staff arms for the State defense councils has put to good use the facilities of the planning agencies and has proved most efficient from the point of view of the defense councils.

The working relationships between the defense councils and planning boards, aside from the interlocking staff arrangements, have been very close. In Illinois, for instance, where the State planning engineer acts also as the assistant coordinator of the State council of defense, the staff of the planning commission conducted surveys of communities where an influx of defense workers had overloaded such community facilities as schools, houses, sewers, and water supplies. Through the council of defense, these reports were used by various Federal agencies in securing needed community facilities. Working from another angle, the commission cooperated with the State council of defense in compiling data on the economic and physical resources on a county basis and on a basis of incorporated communities of 2,500 or more population. Analysis of these data assisted in determining the best location for proposed ordnance and other plants. Basic information developed by the State planning commission has received further use in connection with activities of the defense council, as there has been need for pertinent information regarding population characteristics, economic and industrial conditions for particular areas to help develop the plans of local civilian defense agencies.

For the past year and a half the Rhode Island State Planning Board has devoted most of its time to the work of the Rhode Island Defense Council. The board has felt that, although concentration on the activities of the council has meant temporary suspension of much of the board's usual work, the first-hand knowledge and understanding of the activities and scope of the defense program gained through work for the defense council will be almost a necessity as background for post-war planning of the State.

State planning board assistance has been given to the State defense councils in connection with civilian defense plans such as those for evacuation and air-raid

warning services. The Connecticut State Development Commission prepared evacuation studies for the State defense council involving designation of danger areas, inventory of accommodations for evacuees, and designation of routes and transportation means for effecting evacuation. In Wisconsin the board has assisted in industrial surveys, the preparation of anti-sabotage instructions, the organization of local and county defense councils, the conduct of the aluminum-scrap collection, the organization of aircraft-warning service, and a study of priorities unemployment.

State wartime planning has recently included another major field of activity which the State planning boards are particularly well equipped to handle. This is the survey of transportation facilities in the vicinity of military areas or war industries necessitated by tire and gasoline rationing. The Massachusetts board prepared and circulated questionnaires to the employees of 280 plants throughout the State. Data and maps were prepared, showing worker distribution by place of employment and place of residence, present means of transportation, tire condition, automobile capacity, and estimated future transportation facility needs. The results of the survey were made available to the department of public utilities, the State rationing board, local war transportation committees, and transit companies.

At the request of the State war transportation committee, the New Jersey State Planning Board is providing a large share of the personnel and facilities to determine present conditions and possible future action to be taken in providing transportation. Cooperation is being given by the State Chamber of Commerce, the State WPA, the State utility commission, public carriers of the State, and thePrudential Life Insurance Co. in a survey by means of questionnaires and preparation of special maps.

Industrial and Related Surveys

Both in peace and wartime, one of the commonest and most useful activities of State planning boards has been the industrial survey and inventory. Such surveys were originally conceived of as long-term continuing studies to supply basic data as a part of the over-all picture of the State, and particularly to serve as bases for advising manufacturers on optimum available plant sites and facilities. With the sudden need for expansion of existing industrial facilities and location of new plants, these surveys became of vital importance to the war effort. In fact, many State planning boards were found to possess virtually the only complete information on industrial facilities for their States.

These up-to-date State industrial inventories served as guides to reservoirs of unused plant capacity and available facilities as well as sources of information on convertible industry. Combined with the research which many States had done on potential industrial developments of their resources, these surveys were invaluable to the Contract Distribution Branch of OPM and later to the War Production Board. From the standpoint of manufacturers desiring to expand or convert production. the information of the State planning boards was equally useful. Further, on the basis of the facts and figures they had gathered with reference to the State's industrial capacity, some State planning boards undertook to perform an active liaison function between the contract distributing branches of the Federal Government and the State's industries.

As part of their industrial studies, some boards had included information on available housing, transportation, and community facilities in the area surrounding unused plants. Such information has been of great assistance in the attempt to place war contracts and locate new plants where there was least congestion.

Among those State planning agencies which have devoted considerable attention and time to the maintenance of an industrial inventory is the Pennsylvania State Planning Board. For several years before the start of the war effort, this planning board had been developing a very complete file of all vacant industrial establishments in the State. Thus, photographs, structural details, and all necessary data concerning unused plants were on hand for use of manufacturers when the defense effort began. In the light of wartime needs, the contents and types of information assembled in this file have been greatly increased, with the result that the State planning board has assisted manufacturers to obtain subcontracts for war orders, and to eliminate much needless transportation of materials.

For several years previous to the beginning of the defense effort, the South Carolina State Planning Board had been building up detailed information on plant facilities in the State, and had advised on location of plants. These activities have swung into further use in connection with the war effort. In addition, under the direction of expert technicians, a series of studies, originally undertaken to explore the possible development of industries based on South Carolina's natural resources, has been turned to more immediate uses, their findings being applicable and useful to war industry. An economic study on the woolen industry has been completed and the findings issued in a report entitled *An Opportunity for the Woolen and Worsted Industry in South Carolina*. A study entitled *Plastics from the Farms and Forests of South Carolina* has also been completed as a companion volume to the bulletin *Building a New World With South Carolina Hardwood, Plywoods, Plastics*. The latter study is intended to tie in the new plastics industry to the natural resources of the

State. A fourth bulletin, applicable to existing and potential industry in the State, has been prepared on the make-up of the population of South Carolina and its potentialities with reference to industrial development.

In Massachusetts, the State planning board has long issued monthly an index of industrial employment prepared by the department of labor and industries, and had maintained as well extensive data on vacant plants, plant sites, and facilities for use by Massachusetts businessmen. Thus, the board was well equipped to undertake, at the request of the Massachusetts Industrial Committee on National Defense, the compilation and publication of the results of a State-wide questionnaire survey made by the Associated Industries of Massachusetts. This survey provided the first comprehensive index available for use in allocating orders for war material production in this State. Similarly, the Massachusetts State Planning Board has recently arranged and published a directory of machine equipment in principal factories of Massachusetts, based on a survey conducted by the Associated Industries of Massachusetts, and has made a study of the development of retail trade in Massachusetts cities and towns, based upon the United States censuses of retail distribution in 1929 and 1939, giving particular attention to the dispersion of trade from the principal metropolitan centers of the State to their respective suburbs.

As has been indicated, some State planning agencies have become centers for bringing together manufacturers and the War Production Board. Among such agencies are the State planning boards of New York and Connecticut. The Connecticut State Development Commission has worked particularly on the problem of distributing subcontracts. At the request of the Governor, the commission has undertaken a survey of industry to ascertain the extent to which Connecticut industry is in the war program, to provide information for use by the War Production Board in spreading production among small business concerns and to identify those businesses which appear to be nonconvertible. One of the related purposes of the survey is also to supply information essential to the solution of post-war readjustment problems.

In New York, the Bureau of State Planning worked out a State war-production plan involving the preparation of an industrial directory and the holding of war-production clinics at which prime contractors and subcontractors were brought together. This plan proved so successful that the Office of Production Management urged its extension to other States and held a national clinic in New York.

Work in industrial research is perhaps carried on at the largest scale by the Washington State Planning Council. At the Governor's request, the council officially represents the State in all industrial matters. Through a special appropriation of $150,000 for 2 years, the council is financing a series of 18 research projects submitted through the State College of Washington, the University of Washington, and the State department of conservation and development. Through the development of new industrial processes, the obtaining of information on the State's natural resources, and the conduct of economic studies to determine the feasibility of an industry within the State, these projects are designed to further the growth of industries in Washington, to aid war industries in Washington, and to assist in bringing about a broader industrial base for Washington. The development by the council of arrangements for carrying on the research projects in the universities and private industries has resulted in the research being done by those equipped to do it while the planning council continues to relate the research and its results to the program for the State as a whole.

Looking beyond current war demands connected with the war, the New Hampshire commission, the Virginia board and the California board, to mention a few, are giving attention to post-war problems of industrial location, conversion, and employment. Industrial inventory files are being kept current, and research projects to aid existing and to stimulate new industries are under way, not only for day-to-day use in the war period, but also for continued use in connection with the post-war readjustment period. The State planning boards, having accumulated data on industry, and having used them with telling effect in connection with the war program, are in an even stronger position to be of use in long-range planning for the post-war period.

Public Works Programming [6]

Although in scattered instances, State and city governments had, for several years, scheduled the construction of proposed capital improvements, in relation to their needs and finances, the programming of public works by States and cities was stimulated by the completion of a series of demonstration projects in 1939–40 using procedures developed by the National Resources Planning Board. Later public works programming was undertaken in a number of States, with technical guidance provided by the National Resources Planning Board.

The launching of public works programming at the State level came at a propitious time in the development of State planning. Good programs of public works depend on sound plans, while at the same time programming is essential to effectuating plans. The State planning boards in Virginia, New Hampshire,

[6] See also statement in preceding section on Public Works Planning.

Maryland, Alabama, Oregon, Idaho, Montana, and Washington undertook the programming of public works on a 6-year basis for their States, sometimes alone and sometimes in cooperation with the State budget division. Today Virginia, New Hampshire, Maryland, Oregon, Idaho, Nevada, and Montana have completed their first annual capital improvements programs with technical assistance from the National Resources Planning Board. In Nevada and Maryland the State planning boards have begun first annual revisions of their 6-year public-works programs and in New Hampshire the first biennial revision has been started. In New York, under the direction of the State bureau of the budget, revision of the public works program is annually being made. Public-works programs are also nearing completion by the State planning boards of Alabama, Arkansas, New Mexico, and Washington and are in preparation in Illinois, California, New Jersey, Connecticut, Colorado, Maine, Massachusetts, Rhode Island, Vermont, and Wisconsin.

The work done on long-range programming of public works through the Public Work Reserve and local public-works programming office is reported on elsewhere in this report.

The post-war importance of public-works programs prepared now by State and local governments must not be underestimated since regular construction is temporarily at a standstill and since these governments would provide a large proportion of public-works projects which might be used to provide employment in the readjustment period after the war. In this connection, the creation of the New York State Post-war Public Works Planning Commission is of interest as a demonstration of what may be done, in the preparation of plans for post-war public-works projects. To this commission the legislature appropriated $450,000 for drawing up detailed blueprints and specifications for post-war projects. The director of the New York Bureau of Planning serves on this commission, thus tying in the State planning agency with the long-range programming of State public works.

It may be noted that, in the programming procedure, hand in hand with the preparation of plans for post-war public works goes the necessity for providing funds with which to finance such projects. The maintenance of tax rates at pre-war levels and the provision by State law or Executive order for the setting aside of cash-reserve funds appear to be the logical means of providing for funds with which to operate such post-war public-works projects as the times may call for.

Today, virtually every State planning agency carries on public-works programming activities, to a greater or lesser degree. As one of the necessary bases for effectuating plans, it appears highly probable that the concern of State planning bodies with orderly programming of capital improvements, according to need and available funds, will continue.

Aids to Defense Area and Local Planning

One of the most important fields of State planning board cooperation is with relation to local governments and planning bodies. Always important as an advisory agency, from the point of view of relating the plans of one locality to those of surrounding areas, the State planning board has become well-nigh indispensable as a cooperating agency in the preparation of plans by war-affected areas.

To the community suddenly faced with a tremendous influx of population seeking employment on construction projects and in war plants, the State planning board has been a source of information and of aid. Many towns had never adopted building or zoning ordinances and had no knowledge of how to control the expansion of their towns. Few were acquainted with the procedures involved in getting public-housing units. What had been a developing aspect of State planning board work became a tremendously important phase under war pressure. Assistance of the sort given by State planning agencies in the pre-war period was early called for by defense-affected communities, and met with a prompt response in Indiana, Arkansas, Michigan, Illinois, Wisconsin, Alabama, Florida, and Rhode Island, as well as many other States. Many State planning agencies have undertaken to provide community surveys in an effort to bring before the communities up-to-date information as a basis for drawing up zoning and trailer ordinances, as well as for locating sites for housing developments, schools, and recreational facilities, and for laying sewers. Such surveys have, for example, been undertaken by the Pennsylvania, Virginia, and Mississippi State planning agencies.

Under the direction of the Pennsylvania State Planning Board, 25 to 30 communities in that State are working on community self-appraisal programs. The objectives of these programs are to secure the most effective use of community resources during the war program, to make local plans now for the post-war period, and generally to stimulate local planning for community development. A booklet, *Community Self-Appraisal*, was prepared for use by the Pennsylvania Department of Commerce which is cooperating with the planning board on this program. Since the outbreak of war, a second edition pointing out the importance of such a program for the war effort has been prepared and published for use by Pennsylvania communities. The board has found an increased demand for information as to planning and zoning powers on the part of local communities affected by the sudden increase in industrial activity, and for aid in establishing city, county, and regional planning agencies.

The Virginia State Planning Board's aid to localities is also increasing. Assistance consists of aid in the preparation of work programs, consultation on specific technical problems, such as review of proposed zoning ordinances, collaboration in specific planning studies, and miscellaneous consultation on procedure, techniques, and related matters. Local planning surveys have been conducted with WPA assistance and in accordance with the procedure and techniques developed by the State planning board in a number of counties and municipalities which have requested such surveys and which provide joint project sponsorship. The board is now preparing a local planning manual for use by the municipalities and counties of the State. It is working in close collaboration with the League of Virginia Municipalities.

The Mississippi Board of Development has as part of its program a basic comprehensive city survey project covering existing land uses, tax assessments, utilities, street conditions, location of industries, and location of facilities for further development of industry.

A major activity of the Tennessee State Planning Commission continues to be assistance in planning at the local level. Thus, under the contract between the Tennessee Valley Authority and the State planning commission, by which technical assistance is rendered localities in reservoir-affected areas in the Tennessee Valley, assistance is being given to about 15 communities. Similarly, under the agreement between the State planning commission, the Tennessee Valley Authority, and the Federal Housing Administration, a comprehensive planning program for the tri-cities region of Bristol, Johnson City, and Kingsport is continuing. Studies already completed include detailed reports on the government of each city; the functions and operating methods, expenditures, and personnel of each department; a preliminary report on the sources of income in the region; a comprehensive review of health and welfare services supplied to the region by local, State, and Federal agencies; surveys of land uses, and areas served by paved streets, sewers, water, gas, electricity, and telephone; and studies of population distribution and trends of growth.

In some States the assistance given by State planning boards has been directed primarily to one or two major problem areas, demanding particular attention. The Maryland State Planning Commission, for example, found that not only were there the usual problems of providing housing, roads, transportation, and other community facilities to the thousands of workers crowding into Baltimore, but that in providing such facilities there were almost insurmountable interjurisdictional difficulties. The Maryland commission, therefore, formed the Baltimore City, Baltimore County, and Anne Arundel County coordinating committee to interrelate the planning activities of the three political subdivisions which are interjurisdictional in character, and to act as a clearing house for all related projects concerning water supply, sewerage, road building, streets, zoning, airports, and housing in the Baltimore area.

Again, in New Hampshire, the State Planning and Development Commission was the motivating agency in bringing about the preparation of a plan for the Piscataqua area with the cooperation of the New Hampshire Seacoast Regional Development Association, the Regional Defense Council of Southern York County, Maine, and the National Resources Planning Board. A survey was undertaken, directed toward solution of defense-resultant problems and examination of the basic resources and long-term problems of the area around Portsmouth, New Hampshire, and Kittery, Maine. From this background, a plan for future development has been drawn, directed particularly toward the post-war Piscataqua area.

The opportunities for cooperation in connection with war-affected areas have not been limited only to relation to the community officials but have extended to the development of very close working relationships with local and State defense councils, other State agencies, and Federal agencies. The State planning agencies in California, New York, Nevada, South Carolina, Utah, New Jersey, and Idaho, as well as others, have cooperated with other agencies on defense area planning, the location of camps and plants, in the preparation of surveys, and in the solution of war-resultant community problems. Almost without exception, the State planning boards have served as sources of information in the determination of need in connection with the allocation of Federal funds for community facilities, have aided in site selection for housing units, and have led the way or cooperated in attempting to secure a coordinated approach by Federal, State, and local agencies in defense areas.

Despite the tremendous burden placed on State planning board staffs in providing "trouble shooting" assistance to defense areas, considerable nonwar assistance has been continued. Two comprehensive local plans were completed with the assistance of State planning agencies during the last year and a half. These were for Elma, Wash., and Marshfield, Mass., and are described in the local plan section of this report.

Aside from technical guidance in specific planning problems of localities, a number of State planning agencies have recognized the need for special manuals to assist local officials. In this connection, the New Hampshire Commission has prepared a community development handbook and the New York board is revising its manual of local planning and zoning powers and procedures in New York State. Similarly,

the Virginia board has under preparation a local planning manual for use by the municipalities and counties of the State, and the Illinois commission is furnishing to local officials brief reviews of important zoning decisions as an aid to a better understanding of the court's attitude on such matters as well as to aid in analyzing zoning problems and the legal questions involved.

Looking beyond the war effort, the assistance of State planning agencies in local defense and area planning is of importance because it insures that the long-range aspects of a situation will be given consideration in planning today's action. Later events may well prove that the most essential aspect of the cooperation and assistance which State planning agencies have given to localities lies in the capacities which the State agencies have developed for maintaining and broadening their planning activities in the post-war period.

Land-Use Planning

As a basic factor to be considered in every phase of planning, land-use planning has always been a major activity of every State planning board, working with State agricultural committees and grant holders. Although particularly essential, in combination with water-use planning, in the arid West, land-use planning is vital to eastern urban areas, to the readjustment of land use, to soil conservation, and in rich agricultural areas where the location of military or industrial facilities is contemplated. A new trend in the type of land-use planning activities carried on by State planning agencies is toward the preparation of programs of land-use readjustment. Under the joint sponsorship of Georgia Bankers' Association and the Georgia State Planning Board the Georgia State Agricultural Council has been established. The membership on the council includes the three members of the State planning board agricultural committee and a representative of each of the State and Federal agricultural agencies serving Georgia. Under the emergency powers vested in the Governor, special funds have been authorized to prosecute the agricultural program launched by the board. Under the direction of the State council, county agricultural councils are functioning. Each county organization includes in its membership a representative of each State and Federal agricultural agency serving its farmers, plus the county school superintendent, bankers, and representatives of other business interests allied with agriculture. The council has directed its major activities toward encouraging the production and conservation of food to feed our civilian population, armed forces, and allies. Through the joint activities of the State department of agricultural education and the chairman of the council, arrangements have been made to finance the purchase of cans for the conservation of food in the community canneries operated under the direction of the State department of agricultural education. In cooperation with the State department of agriculture and a group of banks in Atlanta the agricultural council is developing a plan by which grading equipment has been purchased and made available for service in practically all of the State-owned farmers' produce markets. Farmers can now have their produce graded at a nominal cost, thus enabling them to sell in accordance with recognized standards. Working in cooperation with the agricultural agencies, the council has assisted in developing plans for two farmer-owned cooperative wholesale produce markets. It has also made a strenuous effort to assist a cooperative cannery in securing necessary priorities on equipment for its plant. The council is now attempting to establish test dehydrating plants at strategic points in the State and to experiment with utilizing parts of canning establishments in dehydration.

The Connecticut State Development Commission is likewise undertaking a significant project in the field of land-use planning. A special State committee has been set up to analyze the functions and procedures of all Federal, State, and semipublic agencies in Connecticut which are concerned with agricultural production or distribution. Most of these agencies have membership on this committee. Arrangements have been made for the staff of the development commission to carry on the preliminary survey work in cooperation with a subcommittee of the State agriculture committee. After completion of the survey of functions and procedures of each agency, it is expected that the committee will outline over-all objectives for all the agencies, and will then work out with the agencies concerned ways in which their programs may be modified or expanded to achieve these objectives. It is hoped that, as a result, duplication of activities will be eliminated in this field.

Along more usual lines of land-use planning the Massachusetts State Planning Board has for several years had under way a project for mapping of land cover, soil, and other conditions for every town in the State, as basis for the development of a workable land-use policy for the State. The surveys have recently been completed and preparation of a State-wide land-use report has begun. Despite the long-range use for which this material has been essentially developed, frequent use of it is being made by the War Department, agricultural planning and defense agencies as well. In connection with its planning for land use the Massachusetts board also works with the rural policy committee and has membership not only on the State committee but also on county and local committees. The chairman of the Massachusetts board is a member of the State rural policy committee, which is composed of Federal and State officials who act in an

advisory capacity to county and town rural policy committees. These committees are composed of rural residents organized for the purpose of inventorying their resources, liabilities, tendencies, needs, and opportunities and making recommendations for action which will harmonize their individual efforts and their public program. These committees use the land-use maps of the State planning board extensively.

The Arkansas and Colorado State planning agencies perform actual operating as well as planning functions in the execution of their States' land-use policy. The Colorado State Planning Commission has in its charge the promotion and organization of soil-conservation districts under an act of 1939. The planning commission operates the machinery for calling and conducting elections of landowners and for carrying on the conduct of district business. At this time there are 31 districts organized and operating, covering more than 11,300,000 acres. In Arkansas the planning board is by State law responsible for the administration of the State's land use policy for tax-forfeited lands. This work is carried on through the board's land-use committee and includes continuous classification and regulation of the land for its most feasible use.

Land-use planning in the stages both of basic data collection and plan formulation is currently a secondary field of State planning activity, due to the pressing nature of war activities. However, the land-use data and maps of State planning agencies are drawn upon from day to day by the Army, civilian defense councils, the War Production Board, and other agencies. With the completion of war duties, it may be expected that the land-use data and plans of the State planning agencies will be even more useful in the plans for readjustment and long-term development of the United States.

Programs of Selected State Planning Boards

As examples of the types of programs generally being carried on by the State boards, there are included here brief summaries of the programs of the California, Arkansas, Massachusetts, and Wisconsin State Planning Boards. In last year's report comparable statements were presented for Washington, Virginia, and Tennessee, which continue their notable service.

California State Planning Board

The California State Planning Board has managed to achieve an even balance, in its activities, between its responsibilities toward the war effort and toward the post-war period. As part of its long-range program started before entry into the war, work is being continued on the State public works program. A 10-year program of capital improvements is being worked out with the State board serving as the clearing house and coordinating agency for development of an integrated and balanced program. In addition to this work, completion of which is expected in 1943, the board plans to issue a report entitled *Public Works Program, 1943–45*, which will list projects proposed by State agencies as being so urgent that provision should be made for them in the coming wartime budget, will specify those for which appropriations are recommended, and will suggest legislation necessary for the successful conduct and implementation of a post-war public works program.

In answer to a long-felt need for a regional planning agency in the San Francisco Bay region, the State planning board has fostered the establishment of a council to serve as an agency for the formulation of plans and the clearing of interjurisdictional problems, both with regard to the present war period and the long-term development of the San Francisco Bay region.

Additional cooperation in regional planning is being given by the board in the Central Valley project studies, being sponsored by the United States Bureau of Reclamation, in connection with the development of the Central Valley multiple-purpose water-conservation project. The State planning board serves as coinvestigator on 6 of the 24 "problems", including analyses of the power, agricultural, industrial, and other aspects of the project—being jointly studied by a large number of local, State, Federal, and private agencies. Both the war and post-war aspects are being given consideration.

As one of the major arsenals of democracy, California after the war will have an enormous problem of plant conversion and of maintaining employment opportunities for industrial workers. Accordingly the board, in cooperation with the National Resources Planning Board regional office, undertook and has completed regional industrial studies of the Los Angeles, San Francisco, and San Diego areas. These reports provide a comprehensive review of the impact of war conditions in these metropolitan areas, and lay a foundation for more detailed post-war planning studies.

Certain activities of the California State Planning Board are directed primarily toward solution of war-induced problems. At the request of the Governor, the board prepared a report entitled, *Organization and Functions of the State Council of Defense*. In this report proposals are made for streamlining relationships between the council and its staff and for more effective cooperation with the Federal Office of Civilian Defense.

Like most of the State planning agencies, the staff of the California board has been devoting a considerable amount of its time to giving assistance to communities affected by industrial or military developments. This board has devoted particular efforts to the study and solution of housing problems in defense areas.

In connection with its post-war planning duties, the California board has prepared a special report on the legal problems related to urban redevelopment. This report will be submitted to the 1943 session of the legislature.

For the future, the program of the board includes, in addition to completion of projects now under way, aid to localities in long-range programming of public works, post-war industrial conversion studies particularly directed toward the maintenance of employment, further research on urban redevelopment problems, completion of an airports and airways plan, study of coordination of research projects, work on a master plan of State development, and local planning stimulation.

Arkansas State Planning Board

A number of continuing functions of the Arkansas State Planning Board indicate that the board enjoys a reputation as an established and capable agency of State government. One activity which is unique in the annals of State administration is that of the board's land-use committee, which by legislative authority is administering an act of the legislature for disposing of tax-forfeited lands. The law providing for the State's land policy required the committee to classify and appraise all lands reverted to the State for nonpayment of taxes and to determine the best use of such lands; to establish the sale price for those lands which are to be sold to private interests; to set aside those which are to be held in public ownership for such specific purposes as forestry, flood reservoirs, recreational areas, wildlife preserves, or other purposes. The committee has issued a pamphlet descriptive of the policy and the manual of procedure under which the lands are classified and disposed of.

The board provided a manuscript for a source book, *Arkansas' Natural Resources, Their Conservation and Use.* This book was written for reference, to be used by the State department of education, and public schools in teaching conservation as required by law. It was prepared by specialists from various State and Federal agencies and representatives of educational institutions, with the State planning board coordinating the work.

The board continues its cooperation with the National Resources Planning Board in all of its regional committee work. It has cooperated in the recently completed Arkansas Valley plan prepared by the staff of region 5. The board offers guidance to cities and counties throughout the State giving assistance to local planning agencies and local housing authorities. It also provides outlines and data for local governmental or commercial agencies in preparing site plans for industries which may utilize natural resources in manufactory.

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Throughout the period of defense and wartime activity since the organization of the Defense Council of Arkansas the board has served to provide the plans for the council and, in this connection, has prepared a disaster, war, and evacuation plan. It has provided data necessary for the selection of sites for military facilties and war industries.

Now in course of preparation are outlines and methodology for a post-war plan for the State. The plan is to include public works by governmental agencies and, insofar as practical, programs of commercial and private industries through the cooperation of all interests concerned.

Massachusetts State Planning Board

The current activities of the Massachusetts State Planning Board fall into three fields: (1) Transportation and evacuation studies in connection with the war effort; (2) studies being made for the Massachusetts Committee on Post-war Readjustment; and (3) continuation of certain long-range studies.

At the present time a large portion of the staff's time is required to handle emergency-transportation studies. The State planning board has furnished the regional office of Price Administration with detailed information on tire conditions and tire-life expectancy, alternate means of transportation, etc., with regard to more than 160,000 workers in 268 industrial plants throughout the State. Numerous special studies have been made for, and in cooperation with, the department of public utilities in connection with its efforts to provide transportation for war workers. The board has also assisted in the preparation of traffic and evacuation manuals in cooperation with the Massachusetts Committee on Public Safety and has helped prepare a manual on group-riding procedure. Revisions have been made of the board's State highway plans as well as its airports and airways plan, due to changes brought on by current military-transportation needs.

Both by reason of the membership of the State planning-board chairman on the Committee on Post-War Readjustment and by reason of the fact that the State planning board is extremely well equipped for such work, much assistance is being given to the post-war readjustment committee. A survey was made by the division of business and economic surveys of the State planning board, at the request of the committee, to determine the most practical means by which detailed information could be obtained on employment opportunities in each Massachusetts city and town when the war ends, and also to find the best means of measuring the extent of labor readjustment necessary in the change-over from war to peace production.

The chairman of the State planning board cooperated closely with the Committee on Post-War Readjustment

in the preparation of a comprehensive plan for submission to the Governor, providing for the reconstruction of areas which may be devasted by action of war. The plan provides in the first instance that, in the case of such devastation, an emergency order prohibiting the issuance of building permits for 90 days shall be issued by the Governor. It further provides for a rehabilitation committee composed of public officials, including the chairman of the State planning board. This rehabilitation committee would determine the areas to which rulings should apply, would fix the dates when building permits might be granted by local authorities for reconstruction, would decide which plan for the use of land should be adopted when two or more cities have a mutual interest, and would prepare plans for the taking of any land in the devastated areas for arterial traffic routes or for other purposes of public interest. Apart from the general intention to provide efficient machinery for meeting the complex problems which might arise from widespread destruction, the primary purpose of the proposal is to give the State and its cities and towns an adequate opportunity to acquire devastated land needed for public improvements.

For the same committee the division of business and economic surveys of the State planning board carried through a preliminary study of the prospective and of new residential building after the war, with particular attention to outlining sources of statistical data and procedure for making final estimates quickly when the readjustment period comes. Formal reports on both these surveys have been submitted to the committee. The division now is engaged in a preliminary survey of the opportunities and industrial adjustments likely to result from the rapid development of synthetic resins as they will affect post-war industry in the Commonwealth.

As another phase of post-war planning, a special public works programming committee set up by the Governor, of which the chairman of the State planning board is a member, is carrying on the programming started under the Public Work Reserve. This committee is using the forms developed by the State planning board and also other material of a statistical and financial nature.

Of the continuing long-range planning activities of the Massachusetts board mention has been made of its land-use planning program. Studies in the industrial and water fields are likewise continuing. On the industrial front the board's division of business and economic surveys completed and published its study of retail-trade trends in Massachusetts cities and towns, and made an intensive study of the rubber situation and outlook as it would affect the economy of the Commonwealth. Surveys and maps of the 23 river basins in the State are nearing completion. It is expected that a concluding summary on the problems found, and proposals for their solution, will then be issued. The committee for the classification of State waters from the standpoint of pollution has, in conjunction with a similar committee from the State of Connecticut, completed a preliminary classification of the Connecticut, Housatonic and Thames River Valleys.

Wisconsin State Planning Board

The Wisconsin State Planning Board has considered its most useful function to be that of assisting local governments with planning problems.

Under the director of regional planning of the State planning board, who serves also as the secretary of the Wisconsin Council of Defense, full cooperation and assistance have been provided to the defense council by the staff of the State planning board. In this connection, the State planning board staff undertook the preparation of a *Survey on Priority Unemployment in Wisconsin*. A questionnaire was formulated, circulated, and the returns were classified and tabulated for use by the Defense Industry Board. Other activities, by which the State planning board has assisted the State defense council, have included the arrangement for a series of educational meetings in various parts of the State, publication of a manual for forest-fire fighters, and arrangements for meetings on the forest-fire problem.

By urgent request of the regional office of the Civil Aeronautics Administration the Wisconsin State Planning Board has undertaken, in conjunction with the aviation committee of the State defense council, the development of a program to stimulate airport construction in Wisconsin. In October 1941 a WPA project was set up to give technical aid to those communities in Wisconsin desiring to develop airports. This continuing project is supervised by the planning board staff, and assistance is available to those communities requesting it, provided in each case the airport site is publicly owned or optioned. The aid given to communities in developing airports includes assistance in site selection, the preparation of a boundary survey, a topographic map, profiles, a runway lay-out together with runway cross sections, grading computations, and an estimate of construction cost. At the present time, plans are being developed for seven airports and it is expected that several others will be undertaken soon. It is the intention of the State planning board, by assisting communities in the preparation of plans for airports, to develop an adequate State airport system.

Service to communities and counties requesting such assistance is given in the preparation of comprehensive zoning ordinances, city and village plans, major street plans, and development plans for the areas surrounding communities. In the past year and a half assistance

has been given to Washington, Racine, Sauk, Columbia, and Dane Counties in the preparation of zoning ordinances, and to Kaukauna, Sun Prairie, Mosinee, Mount Horeb, Burlington, Prairie de Sac, Sauk City, Merrimack, and Wisconsin Dells.

Assistance of a special nature has been provided to communities and counties affected by the location of war industrial establishments, and to communities affected by recent floods. Assistance to the latter communities has been concerned primarily with the preparation of flood-control plans for protection of the communities against future like disasters, but has also included the redesigning and moving of a whole community.

One of the functions of the director of regional planning is to approve or disapprove of land-subdivision plats outside of Milwaukee County. Statutory standards have been established setting up certain minimum requirements as to the information to appear on plats. The inspection and checking of such plats is a continuous operation.

The State planning board provides help to local communities in the development of park and recreation plans and has recently completed a survey of municipal parks and recreation costs. At the request of the local authorities, assistance is being rendered in the preparation of a county recreational plan for Outagamie County, and park-development plans for Kewaunee County, the city of Kewaunee, the village of Lomira, and Dodge County. Consulting assistance has been given in the preparation of a design for a port of entry, in the improvement of city-highway entrances, in the preparation of plans for improvement of historical sites, and in the selection and development of camp sites. The staff has cooperated with the Chicago Regional Planning Association and the Illinois State Planning Commission in the initial development of material looking toward the preparation of a plan for a public recreation area on the Lake Michigan shore between Kenosha, Wis., and Waukegan, Ill.

Over a period of the last 5 years, the State planning board has been carrying on a study of local government finance in order to facilitate studies of comparative costs of government functions throughout the State, to detect trends in government expenditures and in the property-tax base, and to assist with problems and affairs of local governments. The first five volumes covering assessments and levies, disbursements, receipts, indebtedness, and school costs, have been completed and the final volume setting forth summaries and conclusions is in preparation.

County-wide conservation programs have been outlined by the State planning-board staff for the use and guidance of the County Conservation Alliance. Such programs have been compiled for 49 counties, covering subjects of soils, forestry, road site problems, water conservation, water pollution, wildlife, recreation, land use, and zoning.

At the request of the Governor, a survey to determine the solid-fuel requirements of the various units of State and local governments was conducted by the State planning board. The survey was to discover the amount of solid fuel which will be needed by institutions and buildings operated by the State, counties, towns, cities, villages, and school districts. Questionnaires furnished by the Office of the Petroleum Coordinator were sent to all units involved. Upon their return these reports were tabulated, and estimates based on their respective populations were made for those units of government which failed to report.

The most recent responsibility, with regard to assistance to local governments, which the State planning board has taken upon itself, is the provision of technical guides to cities and counties in the preparation of long-range programs of public works. It is expected that the public works programs will be developed in conjunction with comprehensive city plans.

At the request of the Governor, the director of regional planning, the State chief engineer, and the State architect have undertaken to prepare surveys of all State buildings and plants, as basis for the development of plans which may serve to guide and control future capital expenditures of the State. A plan for the development of the campus of the University of Wisconsin has been completed and surveys are under way or have been completed in at least a dozen of the other State institutions.

State Post-War Plans

The task of preparing post-war plans now lies ahead of the State planning agencies. In the face of narrowing staff, and continuing heavy duties connected with the war effort, the size of the task looms large. In a very real sense, therefore, the means of obtaining post-war plans will need to be through the cooperative efforts of many agencies. Fortunately today as never before the State planning boards stress the importance of obtaining cooperation, are using it as a method of getting work done and have already established working relationships with other State agencies, Federal and local agencies, colleges and universities, and other sources. Recognition of the need for extensive cooperation in the preparation of post-war plans has been demonstrated in each of the States which has thus far made provision for post-war planning.

The Washington State Planning Council, at the suggestion of the State Chamber of Commerce, called a conference of State leaders to discuss possible studies and surveys which could be the basis of sound post-war planning in Washington. Newspapers, universities,

Federal, State, local governments, labor and private industry were represented at the conference. As an outgrowth of this meeting the planning council has organized a project on *War and Post-War Readjustments*, with the cooperation of the institutions of higher education and private industry to handle post-war problems.

In Massachusetts the Committee on Post-War Readjustments has been appointed by the Governor. This committee is composed of 32 men and women selected from workers, farmers, economists, and planning authorities. The chairman of the State planning board is among the members of this committee and the staff of the planning board is preparing a number of the materials and studies needed by the post-war committee. A preliminary report to Governor Saltonstall, *The General Post-War Outlook*, has been made by the Massachusetts Committee on Post-War Readjustment. While indicating that the post-war outlook for Massachusetts is relatively favorable, the committee stresses the fact that the preparation of a post-war plan of action is essential not only for the State but for each busines concern as well.

Since full employment is the key to the post-war period, the initial task of the committee, as set out in its report, is that of fact finding in regard to changes in total employment in particular industries and in particular areas, and in the distribution of labor and personnel among the various skills and occupations. Study must then be given to changes in the sources of funds, in character and type of industrial production, in wage structure, in prices, in the capacity and character of industrial plants, in industrial technology, in agriculture, in construction of public works, in private construction programs, in housing needs, in social security, in the various forms of savings, in sales of goods to consumers in retail inventories, in war contracts, and in the extent and incidence of taxation. The accumulation of basic data will be followed by an analysis of the probable sequence of events or problems which will confront the State after the war and the determination of several plans of operation, one of which may be used in the light of the sequence of events.

In New York a committee has been set up on post-war problems, of which the director of the Bureau of Planning is the chairman, composed of the heads of various State departments as well as representatives of labor, industry, agriculture, and other interests within the State. The post-war committee is making extensive use of the facilities of the bureau of planning through its industrial surveys. The Bureau of Planning is also cooperating with the Joint Legislative Committee on Industry and Labor in its study of post-war problems.

In addition to the work being carried on by the Massachusetts, New York, and Washington State planning agencies, many other State planning boards are giving thought to post-war plans and to the need for permissive legislation for effecting these plans.

Most State planning agencies have begun the preparation of long-range public-works programs and some are continuing the preparation of "shelves" of public-works proposals begun under the Public Work Reserve. In general, the State planning agencies are coordinating the programming operations for the State government, and a number have accepted as their responsibility the provision of assistance to local governments in the preparation of long-range capital-improvements programs. The detailed plans and specifications for post-war public works being prepared by the New York State Post-War Public Works Commission may well serve as an example to other States.

State planning boards are recommending the passage of legislation setting aside funds of the State during the war period in order to finance post-war projects. Some are suggesting the freezing of funds allocated to construction which cannot be carried on for the duration. Ways and means are also being considered for permitting localities to tax and create sinking funds for a similar purpose. Massachusetts and New York have enacted excellent laws on this subject; California has had a law of this type since 1937; Nevada, New Jersey, Oregon, and Washington have some permissive legislation; and in Minnesota the Governor, by executive order, has impounded some $4,000,000 from highway funds and unexpended construction money to be used as a post-war reserve. The Maryland Planning Commission and others have recommended to their Governors and legislatures the enactment of similar laws.

The Council of State Governments is circulating a State Post-War Reserve Fund and Planning Act to encourage more State legislatures to authorize the establishment of post-war reserves. The reserve funds are to be used "only for defraying or financing all or part of the cost of a long-range post-war program of public improvements and betterments * * * including capital acquisition, replacements, additions, improvements, construction, reconstruction, deferred maintenance, developmental services, administrative and other expenses of the State planning board, and such other expenses as may be authorized by law." The State planning agency is to develop a long-range program of public works projects to be financed after the war from the reserve fund. Where no State planning agency exists qualified to prepare this program, the bill provides for the creation of a State post-war planning board. Most of the State planning board laws provide that they shall do public-works programming, while the planning boards of other States have been directed to do so by the Governors.

In addition to this type of legislation, there are many other suggestions under consideration for action now that will make possible speedier introduction of post-war programs. Programs are being advanced for the acquisition now of needed property, and legislation is being suggested to permit the formation of State and local publicly owned corporations to carry out certain phases of the post-war plans. Laws of many types will be needed to deal with post-war problems, and can be developed now to be put before State legislatures.

In addition to the programming activities the collection of "shelves" of public works and the development of legislation for post-war use, State planning boards are participating in post-war planning on an area basis in various communities and regions. Strong cooperation, for example, is being given by the State planning agencies to the intensive area planning projects for the war and post-war periods, initiated by the National Resources Planning Board. The Utah State Development Commission serves as sponsor for the Wasatch Front project, the Washington State Planning Council recommended the establishment of the Puget Sound Regional Planning Commission and is aiding the Puget Sound regional planning project, while the Colorado State Planning Commission is lending full assistance to the Denver metropolitan planning project. The plan for the Piscataqua region, prepared under the direction of the New Hampshire commission, and the rehabilitation study of the Mesabi area being carried on by the Minnesota Resources Commission are examples of post-war planning by the State planning agencies for particular areas.

At the present time, the State planning boards have a head start in the task of planning for post-war readjustment and development of State resources. Both their long-range plans and their wartime planning projects will enable them to advance this work rapidly and effectively as funds and trained personnel are available. Specific plans will be needed to assist private industry in the conversion of war plants and the development of new post-war industries; to readjust war-boom areas to maximum use of their new facilities, eliminating congestion and temporary structures as rapidly as possible and guiding the migration of excess population; strengthen employment services to direct demobilized soldiers and war workers to new jobs; expand education, health, and welfare services to meet the problems of post-war transition; construct improved highway, air, and terminal facilities; readjust land-use, conserve and improve lands, and open up new land areas suitable to settlement; facilitate the construction of needed new rural and urban housing, and the elimination of slums and substandard dwellings; and develop programs, engineering plans and specifications for post-war public works. The State legislatures will have an opportunity at their forthcoming biennial sessions to provide the State planning boards with the funds needed for this post-war planning job.

LOCAL PLANNING

The war has brought many advancements in local planning. Legislation for planning and zoning has increased, the number of planning agencies has grown, the scope of their plans has broadened. Most significant, however, is the fact that planning has been accepted in many war-production and military areas as a necessity. It has become apparent that the success of war production lies in planning, planning not only the number of units to be produced and the allocation of necessary raw materials, but planning for workers and their environment.

The building of large industrial plants and military cantonments has resulted in extremely congested conditions. Towns and cities have been doubled in size. There have been critical shortages in housing, water supply, sewer systems, access roads, hospitals, and educational facilities. Conditions of this sort cannot be considered simply as inconveniences; they are directly related to the efficiency of the war production system. Under such circumstances it is impossible for the workers to produce at capacity, valuable man-hours are lost by transportation difficulties, production may be held up by water shortages. It is certain that bad living conditions have been the chief cause of rapid labor turn-over, a luxury we can no longer afford.

Another problem which all cities have faced is the possibility of enemy air attack. To protect the citizens plans have had to be made for the evacuation of children and older people; air-raid shelters have been designated; emergency first-aid stations have been organized; increased equipment for fire fighting has been necessary.

Thus, local war communities have been forced to plan solutions for their problems. They have had to make surveys to discover their needs and from these they have had to proceed to the selection of sites for housing; to the development of bypass routes and access roads to relieve congested highways; to the planning of needed sewers and waterworks. Many of these developments had been previously taken for granted. The war forced on many communities the realization that no town can afford to develop haphazardly, that under modern conditions the sheer mechanics of living have become too complicated, the lives, comfort, and

efficiency of too many people are involved to allow completely uncontrolled development of the town. For the town is more than a mere aggregate of buildings; it is the setting within which people must live their lives and the happiness which they can achieve depends to a certain extent on the conditions of the setting. A satisfactory environment, however, is not the product of automatic growth. It can come only by careful thought and by working out requirements in advance so that they are provided for before they ever become needs. This has been learned through the war experience and has brought a substantial increase in local planning. For the realization of the need for guided progress can be called the beginning of planning, and town after town has seen such a need. From there, many have gone on to use planning methods to solve their problems of expanded populations and inadequate facilities.

Local Communities' War-Time Planning

The problems created by the war have been tackled first by the efforts of the local communities themselves. The methods followed have sometimes been simply "decisions" without previous investigation and planning, but more frequently planning techniques have been followed by municipal departments, the planning commission and the local defense council; the three groups which have been chiefly responsible for work of this type. It is to be regarded as one of the significant trends of the last 18 months that many planning commissions have been formed for the specific purpose of solving the problems arising from the war. Furthermore, the defense councils have in many cases carried some of the work which would have been performed by a planning commission, had one existed. The formation of these councils has greatly increased planning activities at the local level.

The local defense councils, some 10,000 of them, are organized in each State under the State defense council. These in turn, are under the supervision of one of the 9 regional offices of the Office of Civilian Defense. The function of the local defense council is to act as the central coordinating body for all programs relating to the community and civilian war effort.

The organization of the council differs in the various communities. In general, however, the council is appointed by the mayor and is made up of appropriate public officials and community leaders from various professional, economic, social, labor, and racial groups. Many States have adopted legislation setting forth the form, the function, the method of appointment, the scope of authority, and the financing of the councils. Communities have then adopted ordinances giving official status and powers to their defense councils. The councils are financed either by direct appropriations from the State or locality, or, in some cases, by the raising of special funds.

The organization usually follows the pattern recommended by the Office of Civilian Defense. The council is divided into two branches—the civilian-protection branch and the civilian-war-services branch. The first is concerned mainly with the organization and training of a force for the protection of the community from enemy action. The second has the job of organizing the numerous activities such as transportation, salvage, housing, health, nutrition, etc., which are necessary either to bring each community actively into the war effort or to adjust the community to the impact of the war.

Planning activities have been carried on by the war services branch. Under the various committees housing surveys have been made and room and housing registeries set up; traffic surveys and working hour surveys have been carried out, leading to the development of a system of staggered hours of work to take the burden off the public transportation system at peak hours and to improve traffic conditions; car-pooling systems have been organized. In many towns the defense council has taken the responsibility of discovering whether the workers in the defense industries were able to get the proper food in or near the factory and where restaurant facilities were poor, has provided a hot lunch, or else carried on a nutrition campaign to instruct housewives in the preparation of box lunches. In many cases this program has been extended to the schools as part of the health for victory program.

In the field of health and welfare services the defense council has usually studied the needs of the community for hospital and welfare services and then set about to provide the necessary facilities. This has involved providing volunteer help in the hospitals to fill in the gaps left by shortages in trained personnel, providing day care for the children of working mothers, and increasing the recreation programs of schools and settlement houses to keep the children busy.

In many communities the research and planning staff of the local planning commissions have supplemented the work of defense councils. The Los Angeles Planning Commission has made studies to aid in the location of industry and housing close to sufficient community and transportation facilities. Thus, a study of the city of Gardena reveal that it would be an excellent location for housing for harbor area war workers, if additional extra transportation were provided. The district already was well supplied with sewers, utilities, schools, and shops. The commission also made an extensive thoroughfare and transportation study.

An important contribution of the Los Angeles City Planning Commission has been in serving as a center

of information to landowners about to undertake subdivision development. In many cases the commission has been able to convince the builders of the soundness of planning techniques and well-integrated, attractive neighborhoods have been built. In one case the owners, with the help of the commission, worked out zoning and street plans and a centralized business area for their subdivision.

In Spokane, Wash., the city planning commission's first job as an outgrowth of the war was to plan the solution of a housing shortage. The commission financed a homes registration office. A master map was prepared so that needs could be spotted easily and solutions worked out within the zoning laws, which have been enforced right through the emergency period. War activities created further housing needs and the commission convinced the local banks of the necessity for increased loans to builders and contractors. With this additional financial backing contracts were then made for 1,000 additional units. Plans were also made for staggered hours to ease the transportation system and work has gone ahead on road improvements. The commission has also made plans to meet the increased need for sewer facilities.

The San Diego City Planning Commission has been active in conducting a survey of the needs of the city and presenting these needs to the Federal Government for assistance. For the most part it has been able to keep present developments within the major street and zoning plan. Work on the master plan has continued, particularly with relation to harbor development, sewer mains, water development, and highways.

Besides the work accomplished by already established agencies and by local defense councils, significant work has been done by planning agencies formed in response to wartime necessity.

It is significant that in many cases the local groups have initiated and carried through their own planning programs, indicating the gradual acceptance of the planning idea.

In Portland, Maine, a city planning board has been established and is already cooperating with Federal housing officials and others in selection of sites for public housing and in working out a program of conversion of large, obsolete houses into multiple dwellings, all the while keying these new housing and public facilities in with the provisions of the long-range plan now being prepared.

At Springfield, Vt., acute housing, traffic, and parking problems led to the hiring of a consultant by the Springfield Manufacturers' Association. From his survey, recommendations were made for housing sites, a building code, new bypass streets, and off-street parking areas.

In another case local planning agencies were successful in anticipating problems before the development of critical conditions. Early in 1942 Marietta, Ga., joined with the Cobb County officials in establishing and staffing a joint planning office. With a view to forestalling mushroom developments pending the preparation of detailed zoning plans and control measures, city and county officials promulgated a joint interim zoning regulation requiring the approval of all new construction in the county by the planning office, not only with regard to the requirements of building codes but especially with regard to land use. With that safeguard assured, the planning office, assisted by a consultant from the Atlanta office of the National Resources Planning Board, proceeded to develop a detailed plan providing for expansion into an area 1 mile beyond the present corporate area of Marietta, incorporating zoning plans, subdivision controls, and utility lay-outs. New urban growth has thus been confined within a well-conceived pattern directed toward sound and economical land use.

This has also been apparent in the formation of planning commissions, in many war-affected communities. Portsmouth, N. H.; New Haven, Conn.; Charleston, S. C.; and Charlestown, Ind., are further examples of communities which established planning boards to work on the solution of their war and post-war problems. An excellent illustration of the organization and the work done by these new commissions can be seen in Hinesville, Ga. The first surveys and improvements in the area were made by State and Federal agencies, but by May 1941 Hinesville, itself, made a beginning on the problems of controlling and directing its future development. City and county planning boards were formed and an interim zoning ordinance drawn up on the basis of land-use maps made by the Work Projects Administration. The city and county govrenments appointed a board of adjustment to work with the planning boards on the enforcement of the zoning ordinances. The planning boards employed a zoning engineer to draw up permanent zoning and subdivision regulations as well as a master plan for Hinesville for the control of future roads and streets, subdivisions, and improvements. The zoning engineer, the city and county planning boards are becoming increasingly important in local affairs and have been consulted frequently as new improvements are made.

State Assistance

Despite the excellent work done by the local planning agencies in adjusting the community to new conditions and planning the facilities for their greatly increased populations, it was clear from the start of the defense program that some assistance from State and Federal Governments would be necessary. In many cases the towns most severely affected had no planning board or zoning legislation and the local officials had difficulty

in coping with their problems. Many of these communities were comparatively small, rural areas with small tax rolls, unable financially to provide the new services now in demand. It was, therefore, necessary for the State and Federal Governments to assist the local jurisdictions. This has resulted in the growth of new functions for the State and Federal Governments and, generally, has increased the scope of their activities at the local level.

The assistance given by State governments has been along three different lines: consultant services; zoning and planning enabling legislation; and help in organizing planning boards and defense councils. Consultant services in various fields have been given either on specific request or when a State agency recognized a particular need in a certain community. The consultants have aided the towns in making surveys of their needs, in programming their requirements so that they could be referred to the proper State or Federal agency, and in choosing proper sites for the location of industry and housing.

Another helpful move on the part of the States has been the enactment of planning and zoning enabling legislation. A number of States either passed zoning enabling legislation or extended the power to jurisdictions which before did not have such a privilege. States which already had zoning enabling laws increased their effectiveness by encouraging local communities to adopt the necessary zoning ordinances. The State planning board often helped the local officials in the drafting process.

Finally, the State planning boards have been active in helping local communities to organize planning boards or defense councils. The State planning boards in these cases, have provided encouragement, helped to draft the necessary ordinances and to establish the basic procedures.

Federal Assistance

The task of the Federal Government in relation to the defense areas has been twofold: (1) The provision of funds for needed facilities in communities; (2) assisting the communities to analyze their needs for these facilities. To perform this task established agencies have had to enlarge the scope of their functions and new agencies have been formed. Despite various difficulties of organization and reorganization, duplication and jurisdictional problems, their work has been extremely significant in the development of joint Federal, State, and local planning activities and procedures for dealing with local problems.

The National Resources Planning Board early recognized the problems created in local areas by the impact of war production and military establishments. Early in 1941 it offered to provide, through State planning boards, on assignment from its regional offices, consultant advice to defense areas. In August of 1941 special funds were allotted by the President to the Board with the specific directive that technical assistance was to be provided to the planning agencies of defense areas in order that they might prepare plans to provide emergency facilities which would contribute to long-range development of the area as much as possible. The National Resources Planning Board carried out this directive by sending out "trouble shooters" and a system of reporting was set up by which these men notified the Board of the needs of the communities studied.

On October 7, 1940, the Lanham Act was passed providing Federal assistance for the building of housing. Later the provisions of this act were extended, upon the recommendations of the National Resources Planning Board and the Bureau of the Budget, to provide Federal assistance for the construction of other community facilities. Administration of assistance provided under the Lanham Act was assigned to various Federal agencies performing related functions. Each agency at first sent its own investigators into the local area, and allocations were based on separate surveys and determination of need. It soon became obvious that there was a definite necessity for coordination of the location, type, and size of new community facilities in physical relation to one another, in relation to the community's existing facilities and own development plans, and in relation to employment schedules. A basic community plan for new facilities was essential to this coordination. The aim of the assistance provided to local communities by the National Resources Planning Board and State planning boards was to aid in the development of such a plan. Cooperative procedures were worked out by Federal, State, and local agencies to this end. An amendment to the Lanham Act in 1942 provided that Federal agencies administering the act should consult with local officials to make projects constructed under the act conform to local plans and conditions.

The Office of Defense Health and Welfare Services was originally set up to provide aid to defense areas in the social-service field. In each of the social-security regions the regional directors of the Social Security Board are designated as regional directors of Defense Health and Welfare Services. They serve as chairmen of the regional advisory councils which include a membership representative of all the constituent units of the Federal Security Agency and other Federal agencies whose activities relate to health, welfare, and education. These councils provided an opportunity for the various Federal agencies to analyze defense and war problems of each region, to evaluate the available local, State, and Federal resources, and to develop joint plans for providing necessary local facilities.

Together, the National Resources Planning Board working with the State and local planning agencies and the Office of Defense Health and Welfare Services developed a program of basic community surveys for defense areas which were extensively used by other agencies providing community facilities. This arrangement was formalized in November 1941 by an agreement between the two agencies to do the work on the basis of a joint procedure. This was done to avoid duplication of effort and to develop joint working arrangements and the results were very successful. These surveys were comprehensive studies outlining predefense conditions, describing the impact of the war, its results to the community and, finally, listing the needs of the community for new facilities, and in some instances pointing to the post-war problems of the area. They were written on the basis of information provided by local, State, and Federal agencies working in each area.

The joint surveys are one of the important developments in present-day intragovernment relations. They represent a new desire on the part of the Federal Government to understand the conditions in an area before instituting an action program. Furthermore, they show an effort to coordinate the activities of agencies working in a certain area at the top so that at the local level there is only one unified program. In July 1942, due to a reduction in appropriations, the National Resources Planning Board was forced to withdraw much of its assistance, except where intensive area planning projects are under way. The Board has continued to render assistance to the Office of Defense Health and Welfare Services in preparing certain defense area reports.

The authority granted by the Lanham Act to provide for housing facilities was administered at first under the general supervision of the Coordinator of Defense Housing in the Office for Emergency Management. The Division of Defense Housing Coordination developed the technique of "programming" defense housing in a given locality. This was the first attempt by any one agency of Government to take an over-all view of housing needs of a given community and, upon the basis of the plans and surveys of other Federal, State, and local agencies, to recommend a coordinated housing program. The Division relied mainly on five existing Federal agencies in securing the information necessary for its programming: The Bureau of Employment Security of the Social Security Board; the Work Projects Administration; the Bureau of Labor Statistics; the Federal Housing Administration, and the National Resources Planning Board. The Board, through its field offices, had a special responsibility for getting the views of local planning agencies. Other agencies made specific studies of certain problems or areas at the request of the Coordinator.

Once the necessary information had been compiled the net need for new housing was estimated by the Coordinator of Defense Housing. This need was then programmed as between public and private construction. To this end, tentative locality program reports were prepared, presenting a description of the defense activity; the labor requirements and supply; a survey of the housing situation; and the determination and programming of the net housing need. These reports were then reviewed by the various housing agencies, offices within the Office for Emergency Management, and the National Resources Planning Board. On the basis of the tentative locality program reports and the comments of the other Federal agencies, the Coordinator then prepared the definite locality program reports which were used by the President in determining the need for new housing. The over-all locality planning and allocations of the housing having been completed, the programs were put into effect through the Federal housing agencies, or private builders.

While this procedure was excellent from the point of view of planning, the difficulty was that the planning was done by one agency and the program was to be carried into effect by another independent agency. The result was that the plans and actual construction were often widely divergent and in many cases the construction agencies insisted on doing their own planning and site location despite the fact it had already been done. This was one of the chief reasons for the reorganization of the housing agencies in February 1942 into one agency, the National Housing Agency, under one administrator.

The result of this reorganization has been a more definite consolidation of the functions of the various housing agencies. The procedure for planning local housing needs has been decentralized and shortened. The responsbility of discovering need has been placed on the 10 regional offices who make regular reports on their areas and who prepare the locality housing programs. The decentralization of the reporting to the regional offices has meant a more complete coverage and a more thorough understanding of each individual community than was possible from the national level.

The responsibility for Federal construction of community facilities contained in the second Lanham Act was given to the Federal Works Agency which organized the Division of Defense Public Works with various regional offices. These offices used the surveys of the Office of Defense Health and Welfare Services and the National Resources Planning Board in determining needs and processing applications.

Early in 1942 the Division of Defense Public Works was abolished within the Federal Works Agency. To replace its regional structure regional offices of the Federal Works Agency were established. The object

of this decentralization was to make it easier for the local governments to apply for needed public works and for the Federal Works Agency to determine real needs.

An additional effort to determine local requirements and relate the provision of community facilities to housing, welfare, transportation, and other requirements is the formation of Vital Area Boards in defense areas having large and complex needs for community facilities. These are set up by the Federal Works Agency and include the Federal Works Agency regional director, representatives of the War and Navy Departments, the Maritime Commission, the Federal Security Agency, the National Housing Agency, and, in some areas, the National Resources Planning Board. The function of these boards is to examine all war public work projects at once, rather than have the applications shifted about from agency to agency. It is hoped that this will provide the necessary coordination and decentralization. From the point of view of local planning, it is to be regarded as another significant attempt on the part of Federal agencies to bring a unified program to the local community.

The last 18 months have seen significant changes in the field of Federal assistance to local planning. There has been both a quantitative and a qualitative increase in the assistance given to the local communities by the Federal Government. The quantitative increase has applied both to the number of localities assisted and the type of assistance given. The qualitative increase resulted from establishment of procedures by which the Federal agencies worked with a knowledge of local conditions and needs. The quality of the final action program has also been improved due to the growth of a more fundamental coordination among the Federal agencies in planning a unified community program.

To achieve even greater coordination among Federal programs in local communities, the National Resources Planning Board proposed that the agreement which it had made jointly with the Office of Defense Health and Welfare Services be extended to include other agencies with community programs, such as the War Production Board, Federal Works Agency, National Housing Agency, Office of Civilian Defense, and Office of Defense Transportation. At the request of the President, the Chairman of the Board sought the cooperation of all agencies in the Detroit area in connection with the problems created by the Willow Run bomber plant.

Federal-State-Local Cooperation

The form that the cooperation among the different levels of government has taken has differed in each area, but nevertheless, a few generalizations can be drawn. The Federal Government has tended to provide the impetus for organization and has provided the expert assistance needed in getting started. The States have immediately stepped in and taken the main responsibility for the work, providing the necessary staff and much of the basic information, which they had accumulated in drawing up their general reports. The local groups have served two functions. In some cases they have made the original request for assistance, bringing to the attention of the Federal agencies conditions which might otherwise have been overlooked. In most cases they have provided the necessary local contacts, the intimate knowledge of the community that is needed to make the plan a practical, working document. These more or less fundamental divisions of labor can be seen by summarizing a few specific cases.

A cooperative local defense-area planning program has been carried on in the area surrounding the Portsmouth, N. H., Navy Yard. Initiated and supported jointly by the New Hampshire State Planning and Development Commission, the Seacoast Regional Development Association of New Hampshire, the Regional Defense Council of Southern York County, Maine, and the regional office of the National Resources Planning Board, this study had two objectives—the preparation of a post-war plan, and the drawing up of recommendations by which emergency war programs could fit in with the plans for post-war development. The staff work was carried on by the State Planning and Development Commission; the National Resources Planning Board provided expert consultant services for the study as a whole and provided most of the basic information for the Maine portion of the area; the Regional Development Association, and to a less extent the Defense Council of Southern York County, provided local contacts and supplementary data, and reviewed critically the recommendations which grew out of the study. The Portsmouth City Planning Board, created primarily as a result of recommendations by agencies participating in the cooperative study, rendered some valued assistance in the later stages of the study. The agencies carrying on the study gave much attention to the current programs for augmenting housing and municipal facilities in the area and endeavored to assist Federal agencies in selecting sites for such housing and facilities. Although the study was late in getting under way these recommendations had some effect.

Northern New Jersey is an example of Federal and State assistance implementing local planning by providing the initial drive and helping with some of the basic study. In the northern New Jersey area the first work was done by the National Resources Planning Board regional office in collaboration with the regional office of the Office of Defense Health and Welfare Services. The work took the form of an over-all planning survey and valuable contributions were made by

the New York Regional Plan Association and the New Jersey State Planning Board. The report covered not only the long-range needs of the area but also the emergency needs of industry, housing, transportation, etc., caused by the war. One of the chief objectives of the study was to arouse local interest in the problems of the area and this was successfully accomplished. As a result of the report various members of official and unofficial groups have been attempting to organize a regional planning board.

Mobile, Ala., on the other hand, is a case where the original impetus came from the local group. In February 1942 the planning committee of the Mobile County Defense Council requested the Atlanta field office of the National Resources Planning Board to undertake the preparation of a comprehensive and unified plan for the provision of housing, community facilities, and transportation. The interagency cooperation noted in a previous section of this report came into play at this point and the Planning Board's staff was aided in its work by various agencies, at various levels of government. These included technical personnel and services from departments of Mobile city and county governments; the Alabama State Employment Service; the Alabama State Planning Commission; the Farm Security Administration; the Alabama and Mobile County Welfare Departments; the Work Projects Administration, and the Atlanta University School of Work. Numerous conferences were held during the course of the work between the technicians and the planning committee and its subcommittees and local officials. By April an advisory report on the plan had been made and adopted by the planning committee. Immediately the Federal Works Agency engaged a special consultant to confer with the report staff and translate the recommendations into war public works project dockets for construction under the Lanham Act. Except for revisions necessitated under the critical materials regulations of the War Production Board, the war public works constructed or under way in the Mobile area are those suggested by the planning committee. The regional office of the National Housing Agency, established in Atlanta about the time the Mobile report was completed, made direct use of the report findings regarding housing needs in formulating the new locality housing programs for the area. Several local proposals evolved in the planning committee meetings, notably the reestablishment of belt-line railway services for worker transportation in the area, were translated into action. The report has been used extensively among war agencies as a reference source and technical guide on Mobile problems. Here one authoritative study, made by all the interested groups, has been the basis for action programs of various agencies.

In Charleston, S. C., the initial steps toward adjustment of the community to war conditions were taken by a Federal agency. Because almost all the incorporated area of the city had been occupied before the war, expansion had necessarily to occur in the unincorporated sections of the county and in the smaller incorporated places of the metropolitan area. No planning legislation and no planning agency existed to guide the expansion outside the city proper. Early in 1941, in collaboration with the South Carolina State Planning Board, the Atlanta field office of the National Resources Planning Board initiated a program of planning assistance to the Charleston area. Planning board consultants worked with the county legislative delegation in formulating an enabling law. As a result a statutory county planning board was established under legislation broad enough to permit collaboration between the several local units in metropolitan regional planning. Since the establishment of the board the Atlanta office has provided continuous technical consultation to it in the development of planning proposals for the alleviation of acute emergency problems, in the recruitment of a technical staff, and in the formulation of a long-range planning program. In May of 1942 the Charleston Vital Area Board was formed and asked the National Resources Planning Board to prepare a detailed advisory report on housing and community facilities needed in the area, on the basis of the Board's prior collaborative activity with the State and county planning boards in the area. Because of the groundwork which had already been done, the Board's regional office was prepared to present a report at a joint meeting between the Vital Area Board and the head of the Bureau of Governmental Requirements of the War Production Board. On the basis of the report, materials priorities for proposed war public works projects were assigned.

Pasco, Wash., was a small railroad and distributing town. In February 1942 conditions were rapidly changed by the location of war activities in the town. The Pasco City Planning Commission had drawn up a zoning ordinance in the pre-war period and consultant service was given by the National Resources Planning Board for revision of the ordinance and for preparation of a county zoning ordinance and house trailer ordinances for the city and county. The city housing authority appointed a committee to study the need for additional defense housing and for selection of sites, while the defense council organized a housing vacancy survey to discover all potential housing space. Further work on the needs of the community and the formulation of an action program was accomplished by a joint committee, set up by the National Resources Planning Board and the Office of Defense Health and Welfare Services, with

representatives of the Army, the Navy, the National Housing Agency, the Public Health Service, and other Federal agencies. Those various agencies worked with the court authorities in obtaining the necessary improvements: A filtration plant, fire hose, and equipment and housing. The situation in Pasco was complicated by continued changes in the size of the depots and by the lack of a decision on the location of the bomb-loading and phosphorous plants.

San Luis Obispo, in southern California, was an agricultural community of some 8,000 persons in 1940. Early in 1941 it encountered problems resulting from wartime expansion, including heavy demands on housing, on health facilities, and on educational facilities. A local defense council was formed and the National Resources Planning Board regional office sent in a consultant who was able to aid the Federal regional coordinator of the Office of Defense Health and Welfare in preparing a report on the area. The consultant also worked with the county board of supervisors in planning solutions to the highway problems. Work was also carried on with the defense housing coordinator in programming needs. While these basic surveys were being done the consultant helped to organize a planning commission in San Luis Obispo County. The commission and the consultant were able to determine needs, and then approached the appropriate Federal agency for assistance.

It is significant to local planning that the war period has forced on many cities and towns a realization of the need for planning. It is also significant that in case after case the plans made have been carried out by the action agencies. Perhaps the most significant trend, however, is the recognition that the different units of government cannot be considered as separate and independent of one another but that each must work with the other in building up a program satisfactory and acceptable to all.

Trends in Planning Procedure

A study of local planning activities in the last 18 months reveals the development of certain new trends in planning procedure. Up to the emergency period local planning concerned itself largely with zoning and with the development of the physical facilities of the town or city. The objective of much planning work that was done was the creation of a physically attractive environment, less emphasis being placed on the fundamental economic and social factors which might govern the direction of change. The procedure for creating such a plan generally involved a long-term study of the city or town, at the end of which a master plan was drawn up, showing the highways, community facilities, schools, etc., which were to be built. Often the planning agency did not have any formal relationship with the action agencies which made it difficult to translate the plan into fact.

Due to the pressures of the war period the scope of planning at the local level has increased. The function of planning has become the adjustment of the city and its facilities to fundamentally different conditions. It has become the job of the planning commission to propose how large numbers of workers are to be housed, how these dwelling units are to be supplied with necessary services, and to discover what new services have to be provided. The performance of this task has required an understanding of the basic factors which have caused the change in the area's economy, and there is an increasing tendency on the part of the planner to begin his work now with a study of the economic and social influences at work in the community. As a result, the plans are beginning to include recommendations to establish certain broad economic conditions, a program for full employment of the area's population based on a full utilization of all its resources. Thus planning is no longer concerned largely with the outward aspect of the city. It is reaching down into all the problems of the community and is concerning itself not only with building the city beautiful but also with building a city on a sound economic basis.

Another very important change in local planning procedure has been the increased speed with which planning has to be performed. Because of the immediacy of the war needs, it has been necessary to work quickly to discover the most urgent demands and, while action was being taken on these, to consider long-range problems. There has not been time to make a complete, exhaustive study of the city or town, resulting in a master plan. In response to the need for a speedier procedure, various methods have been developed by which planning can be accomplished more rapidly. Two of these are outlined below.

The joint area surveys which were carried on by the National Resources Planning Board and the Office of Defense Health and Welfare Services were a method by which the needs of a defense-affected community could be discovered efficiently and rapidly, but in a way that insured both a relatively thorough and comprehensive result. This was made possible by the cooperation of other Government agencies, Federal, State, and local, in pooling their knowledge and material on the area under consideration and, to a great extent, by the excellent contributions made by local groups. The other vital factor in the procedure was the sending of a consultant to the area to coordinate the different aspects on the basis of first-hand knowledge of the problem.

The Urban Section of the Planning Board has developed a procedure to be used now and in the post-war

period in meeting both day-to-day and long-range needs. The procedure sets up a continuing planning process organized by definite stages. The first stage involves the formulation of the goals for the city's economic and social development and the making of an outline plan for the achievement of these goals. This outline plan includes all necessary basic considerations treated generally. It supplies enough information, however, so that action programs for the solution of war problems can be formulated. The long-term problems are thus dealt with in more detail.

This urban-planning procedure recognizes the necessity for speed in setting up curative and constructive programs and the democratic obligation that planning be based on the need, aspirations, and efforts of the citizens themselves and the local organizations of each community. The planning and replanning of a city by the urban-planning procedure starts on a comprehensive basis but in sketch form and in successive stages is continuously refined. Instead of waiting "until all the facts are in" it calls for the formulation of a tentative program of community action immediately following the initial reconnaissance of the community. This provisional program is revised, supplemented, and detailed with the accumulation of further knowledge of the community's resources, requirements, and aspirations.

The principal stages in the urban-planning procedure may be summarized as follows:

(*a*) A rapid preliminary survey is made of the area. The outstanding features—physical, economic, social, organizational—are observed and most significant problems noted.

(*b*) The people and their way of living are carefully studied. Desirable and possible objectives are set up for strengthened industry, improved commerce, full employment, and proper social and cultural conditions. To approach these goals, action programs are prepared which aim to better present facilities and services and to develop the latent assets of the city.

(*c*) Alternative patterns are sketched, showing locations and relationships of the various activities of the community—industry, residence, transportation, etc.

(*d*) The existing physical pattern of the city is then studied, noting what forces are tending to alter or to stabilize it, which of its elements are free to change, which are relatively fixed.

(*e*) The ideal alternative patterns (stage C) are adjusted to fit limitations of present conditions (stage D), producing a working plan for the city and adjacent areas. This working plan is checked for practicality, its parts adjusted to each other, essential details filled in.

(*f*) A comprehensive program for improvement of the working plan and for continuance of planning is developed. This final stage of the urban-planning procedure would include an appraisal of the means of planning action (zoning, urban redevelopment, subdivision control, taxation, etc.). It would also propose the community organization of official and nonofficial agencies for carrying out such a program.

Before making the procedure generally available, the Urban Section is testing and revising it by a series of demonstrations. Cities are being chosen which require varying application of the technique due to differences in size, economy, public opinion, and other factors. They are all communities which have been dislocated by military installations or war industries and are therefore in serious need of immediate planning aid. Into each of these demonstration cities a planning technician is being sent by the Board. His duties are to organize local agencies to undertake planning on the basis of the procedure and to coordinate and advise on the actual operation. During the operation he observes critically the application of the procedure for the purpose of recommending changes which will make the technique shorter, simpler, or more effective. The Washington office cooperates with the field technicians by supplying statistical data and assistance from other agencies available in Washington. Three such demonstrations are now in operation: Tacoma, Wash., Corpus Christi, Tex., and Salt Lake City, Utah. Several other cities will be selected to increase the range of types in the experiments.

Shorter procedures for municipal planning have also been the object of study by the Federal Housing Administration. A three-city planning demonstration was set up in Johnson City, Kingsport, and Bristol, Tenn. It is hoped to develop from this a procedure by which cities can organize inexpensive programs for land-use protection and guidance in real property development. A special study was made of the problem of blighted areas in cities, in an attempt to work out a program for controlling their growth, which would be acceptable to both private and public financial interests and be relatively simple to administer. As a result of the study a *Handbook on Urban Redevelopment for Cities in the United States* was published. The objective of the handbook is to aid urban communities in realizing the scope and intricacy of the problems they face and to guide them toward solutions.

Another study directed at aiding the community in solving its difficulties is the *Small Town Manual* prepared by the Bureau of Foreign and Domestic Commerce in the Department of Commerce. This manual is aimed at helping the small community to organize for the war effort and, also, to plan for the peace. The procedure involves an analysis of the community, its

resources and its needs. With this knowledge plans are drawn up for community action on war production, housing, use of all available resources and labor. The manual is aimed at the small community, the "grass roots" level.

The summary of the development of the various joint surveys and joint boards in the previous section of this report showed the growth of a new relationship between the planning and action agencies. Whereas in the past the planning agency tended to work apart, publishing its findings as a series of recommendations, which were sometimes considered, sometimes not, now the action agency is turning to the planners to discover needs and for help in formulating its program. Because of the extraordinary pressures of the present time each agency has had to specialize, to develop its real function. The action agencies have felt the need for the data, plans, and suggested programs of over-all planning agencies.

As an example of a comprehensive plan prepared with the full cooperation of the entire citizenry, the Elma survey is unparalleled. The initial suggestion that a study be made came from the manager of the Elma Chamber of Commerce in 1939. The investigations were started under the guidance of the Washington State Planning Council, and a report was issued in December 1941. A local committee of 21 and a steering committee of 3 sponsored the work, and the Washington State Planning Council directed the study and furnished technical assistance. The council believes, according to its report, that—

> second only in importance to the report itself has been the technique worked out during this study for bringing together the specific talents of a maze of agencies—local, State, and Federal—extracting from each a segment of specific information or service related directly to the particular area under study and in common consultation with local citizens and technical experts fitting each portion of this "jigsaw" pattern into a comprehensive picture of community assets and deficits.

Acting as a coordinating body, the council secured direct assistance to the study from 40 Federal, State, and county agencies. Information was garnered from all types of agencies: The Grays Harbor County agricultural agent directed a field study of butterfat production and secured the completion of the recommended land-use map of the county; the Soil Conservation Service made a detailed soil survey of 13 types of farms and prepared a farm plan for each; the chambers of commerce, newspapers, businessmen, universities, and schools all took part in the survey.

Of particular note is the cooperation received from the schools of the area. High-school students were found to have an alertness to local problems which encouraged the interest and cooperation of the parents. In addition, the high-school students were able to supply a good deal of the necessary basic data.

> The Elma school superintendent, principal, and teachers were eager not only to have the students help gather the facts, but to use the survey itself, when completed, as an instrumentality of education in the schools. After careful training, students of the high school, working under their civics teachers, made a land-use survey of the town of Elma and the data were tabulated and placed on a base map. Again, after receiving proper training, 120 picked students, working in pairs, placed a 4-page printed questionnaire in the hands of each householder within the 250 square-mile study area, assisted the family in filling it out whenever requested, and returned the folowing day to secure the forms properly completed. Collected in sealed ballot boxes these unsigned questionnaires, giving intimate and rather detailed information, were secured in usuable form from over 75 percent of the householders. This mass of material was placed upon Hollerith cards and runs were made on the tabulating machines of the State office of unemployment compensation and placement. Thus the school, the individual families of the area, and a State department possessing the necessary machinery, though having no specific local interest, cooperatively placed in easily usable form a wealth of basic facts invaluable in an accurate study.

The method of preparation of the Elma plan leaves little doubt as to the use which will be made of it, and even less doubt as to its acceptability to the people of Elma. As a sample of democratic planning, the Elma survey may well be of interest to many communities.

A similar example of local initiative in planning was demonstrated in Marshfield, Mass. Following a fire in April 1941, which completely destroyed the Ocean Bluff section of Marshfield, a rehabilitation committee was set up to plan for rebuilding the devastated area. The Massachusetts State Planning Board was invited to sit in on the initial discussions and was able to lend its influence toward rebuilding the area on a sound and comprehensive plan. The final program, adopted by the town selectmen, included a new street plan, revision of the town's partial-zoning bylaw, development of subdivision regulations, new building bylaws, and a plan for rearrangement of lots. In both the Elma survey and the rebuilding of Ocean Bluff, manuals describing in detail the procedures used have been prepared.

The initiation of 6-year public works programming in many cities, towns, and local jurisdictions has been of very real significance to local planning procedure. The programming procedure developed by the National Resources Planning Board was first demonstrated in a number of communities, then published in June 1941 as *Long-Range Programming of Municipal Public Works*. This procedure involves the consideration of present needs in relation to desired future development—the basis of planning. To create a good program the town officials are forced to study the needs of the community and to schedule these in order of their desirability. The programming procedure has done much to educate local officials in the use of planning methods; but, more than that, it has made them realize

that planning is not an elaborate process but rather a common-sense method to guarantee efficient expenditure of finances and use of the communities' resources. In many cases public works programming has convinced the officials of the need for more basic planning, and planning boards have been set up as a result.

Status of Local Planning Agencies and Zoning Laws

Some idea of the number of planning commissions can be gained from the survey made for the *Municipal Yearbook, 1942,* published by the International City Managers' Association. While this survey is limited to cities of 25,000 population and over, it is the most complete available and, as the survey indicates, planning commissions are more active among the larger cities. Of the 412 cities covered, 410 replied to the questionnaire used; 73 percent of the 410 cities reported had planning commissions at the beginning of 1942. However, appropriations have not kept pace with the number of planning commissions: 53 percent of the planning agencies do not have budgets large enough to allow for full-time employees; 27 cities had contracts with planning consultants and many received valuable part-time work from employees in other city departments.

There are ex-officio members on 60 percent of the commissions so reporting. The city engineer, the mayor, a member of the city council, the director of public works, and the director of parks are, in the order given, the most frequent ex-officio members.

Among the more important new or revitalized city planning commissions are those of Buffalo, Chicago, Cleveland, Detroit, Los Angeles, Philadelphia, and St. Paul. In Cleveland, better city planning was part of the mayor's election campaign. The new city-planning commission has an increased technical staff, an appropriation of $30,000 for the latter part of 1942 and $80,000 for 1943. In order to relate planning to other interests in the city, a city councilman is a member of the commission, and an advisory board of citizens and a coordinating board of administrative officials are set up. The new commission will nominate a director to be appointed by the mayor with powers equal to that of other city administrative heads. The commission will have mandatory review of all ordinances and improvement proposals, and will conduct studies on land use, population, and a city-improvement program.

A new plan commission was appointed in 1940 in Chicago, with the specific authorization of the mayor and the city council to prepare a comprehensive plan. To this end a population survey and a recreation survey have been made. Plans for the redevelopment of three of the blighted areas within the city have been drawn up and the commission is also in charge of the public-works programming.

The Los Angeles Planning Commission also has been reorganized. It consists of five members, who appoint a planning director. A coordinating board of city department heads will work with the planning director on a master plan. Much of the zoning work will be handled by a zoning administrator and board of appeals so that the planning commission will have more time to concentrate on the broader aspects of planning.

Detroit has appropriated $15,000 for the latter part of 1941, and $40,000 for 1942. Most of this money will be spent on preparation of a master plan. Buffalo has appropriated $35,000 to its commission for the coming year.

Pittsburgh and St. Paul made special efforts to develop general interest in planning on the part of citizens. In St. Paul the mayor has appointed a united civic council of citizens to work with the St. Paul Planning Commission on estimates and plans for needed public improvements. It is expected that most of these plans will be of post-war value.

The importance of metropolitan planning has long been recognized and planning associations, such as the Regional Association of Cleveland and the New York Regional Plan Association, have proved their value. It has proved impossible to separate either the physical or financial problems of the central city from those of the suburbs. The better approach is to treat the metropolitan unit as a related whole.

The New York Regional Plan Association has been able both to continue its long-range work and to do much toward improving present wartime conditions. The impact of the war has been concentrated, for the most part, in outlying cities around New York City proper. The chief problems in the area have been two-fold: those relating to housing in the northern New Jersey and Long Island areas and those relating to transportation of workers due to the tire and gas rationing.

The Association worked with the Office of Defense Health and Welfare Services and the Defense Highway Commission in working out and putting into effect the war traffic conservation plan—an attempt to provide adequate transportation facilities for the large number of Long Island workers who had previously commuted to New York City by car. Officials of the Association worked with the Pennsylvania Railroad Co. in an effort to improve service on Long Island.

An excellent summary of data on recent developments in the Nassau County aircraft industry was prepared by the Association office. Similar reports are to be done on Huntington, Islip, and Babylon, Long Island. A very thorough report on Staten Island housing conditions was prepared for the ODHWS.

Perhaps the most significant aspect of the work done by the Association is its cooperation with the different State, local, and Federal agencies, and its ability to tie some of the defense needs into the long-range plan. Thus, the plans for the access highway from Rockaway, N. J., to the Picatinny Arsenal will allow the road eventually to be converted into a section of one of the parkways embodied in the regional plan.

The Hamilton County Planning Commission, which includes Cincinnati, has been reorganized, with closer representation of the governments and interests of the area. The membership on the commission has been reduced from 30 or 40 to a total of 11, and it is expected that better attendance at meetings and more interest will result from a smaller personnel. In addition, the unincorporated sections of the region have been given equal representation with the incorporated areas.

New metropolitan planning commissions have been organized in several cities. Detroit now has a regional planning commission as well as its new city planning commission. The new Cleveland Planning Commission, whose powers are limited to the city, will include plans for the metropolitan area. Birmingham, Atlanta, and Baltimore have also recently established regional planning commissions.

Another outstanding development in recent months has been the increase in State enabling legislation for various forms of planning activities. The impact of the war made necessary some control of developments around the war plants or military establishments and regulation of trailer and tent towns. Most of the smaller communities knew little about zoning and, in some cases, there was no adequate State enabling legislation authorizing zoning. To aid local communities in coping with this situation the National Resources Planning Board early in 1941 asked Mr. Alfred Bettman to prepare model State enabling legislation for planning and zoning, which, when adopted locally, would give the communities the power to prohibit the growth of shack towns and other nuisances on their borders.

In line with this request two bills were drafted, one a State enabling act for county planning and zoning, the other an interim zoning bill for use by counties and cities already having authority to zone. The Department of Justice cooperated in distributing copies of the bills through the Council of State Governments. The county planning and zoning enabling act was modeled on the Colorado act and provided for the planning, zoning, and regulation of land subdivision in the unincorporated territory of counties and for the organization of county and regional planning commissions. The chief characteristics of the model act were the provisions authorizing the board of county commissioners to set up a planning commission and a provision authorizing the board of county commissioners themselves to zone.

The model bill for interim zoning provided for emergency zoning in areas around military, naval, and industrial establishments, and provided for the delineation of the defense area and the preparation of an interim zoning plan for this area by the planning commission, which was defined as including any municipal county or other planning or zoning commission then in existence or established at a later date. The Consumer Division of the Office of Price Administration issued a model ordinance for the regulation of trailer coach parking and trailer parks.

The results of these efforts were extremely encouraging in that they led to an increase in State enabling legislation. In Michigan legislation was passed authorizing zoning in townships adjacent to the boundaries of cities of 40,000 or more, in counties of 225,000 or more, or by the electors of any organized township having a population of 1,500 or more. The zoning regulations were to be drawn up in each case by town or county planning commissions. Platting regulations were also included. In 1942 the county board of supervisors was authorized to regulate the minimum construction requirements for any building.

In Minnesota, where zoning privileges had already been extended to all classes of cities, it was provided that the board of supervisors in any town bordering on any city of the first, second, or third class could submit to the voters the question of whether that board should zone. Authorization of zoning was also provided for cities of the first class located in a county of an area of 5,000 square miles and operating under a home-rule charter or charter adopted pursuant to the State Constitution of Minnesota, and for towns in counties having a population of more than 450,000 and an assessed value (1935) of over $280,000,000.

In Missouri a law was drafted with particular reference to war conditions. It provided that county courts of any county of 200,000 to 400,000 population, or in which, or in a county adjoining which, there was a military camp or defense plant, could plan, zone, and control subdivisions. Two additional laws authorized zoning in the unincorporated portions of counties of 200,000 to 400,000 and 400,000 to 600,000 population. All incorporated cities, towns, and villages, except those within counties having a population of less than 10,000, were also authorized to zone.

A similar type of legislation was enacted in Nebraska. Authorization was granted to county boards, except in counties in which a metropolitan city is located, to zone in unincorporated areas of the county if Federal forts, aircraft manufacturing, or military-equipment plants were located within the county, or in a county adjacent, providing the military establishment was

not more than 10 miles from the county boundary. The State zoning authority was given the power to consolidate cities, towns, and villages for zoning purposes whenever such military establishments or plants were located near city, village, or county limits.

A more general type of law was enacted in Nevada, by which cities in all counties with a population of 15,000 or more were authorized to create planning commissions and to zone. This same type of legislation was passed in Utah, where the board of county commissioners in all counties was authorized to appoint planning commissions with the authority to zone. In counties of less than 15,000 the zoning could be done by the county commissioners themselves. Kentucky, in 1942, authorized the creation of a planning and zoning commission in any city or county of the first class.

In States where planning legislation had already been passed, there was a marked tendency toward increased effectiveness of this legislation. In Kansas a law was passed requiring city planning commissions to prepare master plans as well as zoning plans in all cities of the first class with a population of more than 60,000. The Georgia planning law provided that the general assembly, on petition, might authorize a city or county to enact planning and zoning ordinances. In the period 1941–42 there was a marked increase in the number of grants. Some 20 jurisdictions were granted such authority in 1941 alone, more than the total of the 4 previous years.

It is difficult to list the number of war-affected defense towns which have availed themselves of the power granted in the new enabling legislation. In many cases they have been aided in forming their ordinances by the State planning board or by a regional office of the National Resources Planning Board.

At Rolla, Mo., for instance, the State planning board and the regional office staff of the National Resources Planning Board prepared a zoning ordinance for the Rolla Zoning Commission. Rolla, located between Fort Leonard Wood and the Vichy Airport, was exposed to very real expansion. A zoning ordinance was drawn up and adopted after land-use surveys and conferences with the community. The anticipated expansion did take place and the zoning ordinance has been adequate to direct the proper growth of the community.

Similar zoning, as well as planning, work was done in Omaha, Wahoo, and Hastings, at the request of the Nebraska Advisory Defense Council. As a result, the war plants are in a better position to produce the immediate war materials without being hindered by local problems of transportation, housing, water supply, and sewage disposal. Furthermore, the approaches and environs of these plants and communities are protected from needless encroachments. This type of long-range local planning will be of value in the post-war adjustment period.

The Municipal Yearbook for 1942, survey of planning in cities of 25,000 population and over, reveals that of the 410 cities answering the questionnaire 83.4 percent have some type of zoning ordinance and that 71.7 percent have comprehensive ordinances; 63.1 percent of the reporting cities had zoning boards of appeal and another 5 percent had some other form of zoning appeal; 7 cities were engaged in preparing or revising zoning ordinances in 1942, according to the Municipal Yearbook survey and at least 7 others revised their ordinances during 1941. The zoning of airport areas has become increasingly important and during 1941 8 States passed acts enabling the zoning of land around airports, including Arkansas, Maine, Massachusetts, Nebraska, New Hampshire, New Mexico, Oklahoma, and Wyoming.

The urban redevelopment corporation laws now in effect in Michigan (for Detroit only), New York, Illinois, and Kentucky are a form of enabling legislation which will be particularly valuable for larger cities concentrating on long-range or post-war reconstruction of blighted areas. These laws provide for use of condemnation proceedings in acquiring land and in return provide for supervision of the development corporation by the local planning commission. New York alone requires that the corporation own or have an option on some portion of the property (51 percent in New York). Kentucky and Michigan require that the area being developed be of "sufficient size"; New York provides a minimum of 100,000 square feet, unless the development is part of a public improvement, and Illinois sets up a minimum of 2 blocks and a maximum of 80 acres in cities of over 500,000 population and a minimum of 1 block and 40 acres in cities of less than 500,000. New York and Michigan limit the taxes for which the corporation is liable and also limit its profits. Kentucky and Illinois make no such provisions. All States require the approval of the plans of the development corporation by the planning commissions and by a fiscal agency and require regular reports by the corporation to the commission.

Post-War Planning

One of the evidences of the growth of local planning is the spontaneous activity among local groups in centers of war production and military activity in planning for large-scale readjustments when the war ends. Some of these areas are so busy meeting day-to-day problems that they have only noted their post-war implications. In many defense areas, however, the planning agencies are undertaking what is called

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"through thinking"—making plans for wartime developments that will meet wartime requirements, post-war readjustment problems, and the long-term needs of the area. Post-war studies have also been started by the planning agencies of communities not having large-scale war activities or problems, and in some cities special post-defense planning committees have been set up. There seems to be a growing realization by local areas that even if planning was not thought necessary or desirable before the war, or needed during the war, it will be essential for meeting the problems likely to arise after the war.

Of course, the two periods, war and post-war cannot be artificially separated. There is no imaginary line which can be drawn between the wartime community and the post-war community. The post-war community will develop out of conditions as they are today. It is of significance to the future that this has been recognized in many of the plans made for wartime adjustments. Various Federal and State agencies, the local governments themselves have realized that the decisions made today would either help or hinder post-war developments. In the surveys made by the National Resources Planning Board and the Office of Defense Health and Welfare Services an attempt was made to fit emergency projects to long-term needs. In many of the other special studies made, the plans were formulated for a dual purpose, to solve both the immediate problem and to provide for better development in the post-war period. The following typical examples of local post-war planning will serve to illustrate these points.

New York City is facing the post-war period realistically by making funds available now for planning and blueprinting of post-war projects. The foundation for the program of public improvements was laid down by the city planning commission in the proposed capital budget for 1942 and the capital program for 1943–47. The amount of new construction for which planning funds are recommended totals $628,000,000, comprising a planning program to be advanced as rapidly as possible no matter how long actual construction may be postponed; $21,000,000 will be available for the preparation of advance plans and specifications for these projects during 1943.

The planning commission has urged city departments to determine sites and building requirements and to have complete plans and specifications ready. The commission itself is working on over-all needs—highways, harbor improvements, and airport facilities. The Regional Plan Association is cooperating in the post-war planning program by planning a pool of proposed public works for the New York metropolitan region—including highway construction and improvement, additional parks and parkways, traffic proposals to relieve street congestion, public improvements, and housing. In addition to this the Association is preparing the way, through legislation and organization, for large-scale activity of private capital in rebuilding blighted areas.

In Baltimore the city planning commission published in July 1942 a long-range program of public improvements to be available as a schedule of work for the post-war period. The program includes substantial improvements in the city's sewer system, installation for increasing the water supply and highway and street improvements. Previous to this the city planning commission cooperated with the National Resources Planning Board and the Office of Defense Health and Welfare Services in a comprehensive study of the effects of the war on Baltimore, with particular reference to the problems which would have to be faced in the post-war period. As a result of the report and the program drawn up by the city planning commission there has been a very real increase in interest on the part of the officials and citizens. A committee of eminent citizens has been appointed by the mayor to work out a program for cushioning the shock of readjustment after the war.

Post-war planning was initiated in Philadelphia, Pa., as early as December 1941, when members of the regional offices of the National Resources Planning Board and the Office of Defense Health and Welfare Services, the Pennsylvania and New Jersey State Planning Boards, and the Pennsylvania Department of Commerce met and decided to prepare a report on the Philadelphia-Camden area. The report, completed by March 1942, contained a program of specific action for the solution of the area's serious problems of transportation, housing, sanitation, and water supply. As a result a committee has been set up, representing the local and municipal officials in the area, in order to facilitate action on the plans.

As another example of local post-war planning, in Burlington, Iowa, the National Resources Planning Board, at the request of the local defense council, interested the University of Iowa in making a thorough investigation of that community for the purpose of determining what measures should be taken to facilitate the city's transition from a wartime to a peacetime basis. Related inquiries of this study included certain investigation into the effect of a large increase in population upon local economic and social conditions. The problem of the town is that the chief source of employment is a large shell-loading plant. In view of the probable difficulty of conversion and the lack of outstanding industrial resources in the area it was decided that a survey of the qualifications of the labor force would be fundamental to further inquiry. This

phase of the survey has been inaugurated and from the conclusion it is hoped that it will be possible to analyze the potentialities of Burlington as a site for specific industries.

Another study of this type was that made for the Piscataqua area in New Hampshire and Maine, by the New Hampshire State Planning and Development Commission, under the sponsorship of the seacoast region of New Hampshire and with the assistance of the regional office of the National Resources Planning Board. The report covers the basic resources and opportunities of the region, the intermittent activity of the navy yard, and the problems thereby created, recognizing its periods of activity and inactivity not as abnormal but as a normal part of such an area's development. Each phase of regional development is then discussed separately, together with a survey of the services needed for the population of the area.

APPENDIX—ORGANIZATION

For purposes of administration, the field offices, special studies, and technical committees of the Board are grouped under the office of the Director and Divisions of the Board's staff. The present membership and organization is summarized in the following pages:

Members of the Board

Frederic A. Delano, *Chairman*
Charles E. Merriam, *Vice Chairman*
George F. Yantis

Advisers

Henry S. Dennison
Beardsley Ruml

Director [1]

Charles W. Eliot

Assistant Directors

Thomas C. Blaisdell
Frank W. Herring
Ralph J. Watkins

Executive Officer

Harold Merrill

Office of the Director

Charles W. Eliot

1. Administration and Coordination

Harold Merrill, Executive Officer.
Leslie W. Landrum, Acting Administrative Assistant.
Wilson F. Harwood, Personnel Assistant.

2. Publication and Information Section

Lloyd George, Chief of Section, Information, Editorial, Publication, Library, etc.; assisted by Martin E. Jansson, Gerald Egan, Emmett J. McCarthy, J. Edward Folger, and supporting staff.

3. Special Studies and Consultants

(*a*) *Post War Agenda:*
Luther Gulick, Consultant in Charge; John Millett;[2] John Miller; and supporting staff.
Lewis L. Lorwin, Economic Adviser, for report on *International Economic Development.*
(*b*) *Urban Conservation and Development:*
Robert Mitchell, Chief of Section; Albert C. Schweizer; and supporting staff.

4. Field Service

John Miller, Chief of Section.

Division A

Assistant Director Thomas C. Blaisdell

1. Trends and Stabilization Section

Spurgeon Bell, Chief of Section.
(*a*) *Trends Unit:*
William C. Cleveland, Harry J. Winslow, Karl Karsten, and supporting staff.
(*b*) *Full Employment Stabilization Unit:*
Paul Samuelson, Consultant; Everett Hagen; and supporting staff.

2. Economic Security, Health, and Nutrition

Eveline M. Burns, Head Economist; and supporting staff.
(*a*) *Long-Range Work and Relief Policies Committee:*
William Haber, *Chairman,* Director of the Bureau of Program Planning and Research, War Manpower Commission.
W. W. Alexander, Chief of Minorities Service, War Manpower Commission.
C. M. Bookman, Executive Vice Chairman, Community Chest of Cincinnati.
Corrington Gill, Consultant, War Department.
The Rt. Rev. Francis J. Haas, Dean, School of Social Science, Catholic University of America.
Fred K. Hoehler, Executive Director, American Public Welfare Association.
Katherine F. Lenroot, Chief, Children's Bureau, Department of Labor.
Mary E. Switzer, Assistant to the Administrator, Federal Security Agency.
Thomas J. Woofter, Jr., Director of Research, Federal Security Agency.

[1] The Director is a member of all technical committees but, to avoid repetition, is not shown in each list below.

[2] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.

3. Science Committee

E. B. Wilson, *Chairman*, School of Public Health, Harvard University (National Research Council).

Waldo G. Leland, *Vice Chairman*, Director of American Council of Learned Societies.

Arthur L. Day, formerly Director of Carnegie Laboratory (National Research Council).

Leonard Carmichael, President, Tufts College (National Research Council).

Edward C. Elliott, War Manpower Commission (American Council on Education).

Guy Stanton Ford, Library of Congress (Social Science Research Council).

Ross G. Harrison, Yale University, and Chairman, National Research Council.

Dugald C. Jackson, Massachusetts Institute of Technology (National Research Council).

Dexter M. Keezer, Office of Price Administration (Social Science Research Council).

Charles R. Morey, Princeton University (American Council of Learned Societies).

William F. Ogburn, University of Chicago (Social Science Council).

George D. Stoddard, Commissioner of Education, State of New York (American Council on Education).

Staff: Robert Leigh,[2] Secretary.
Lawrence K. Frank, Secretary.

(*a*) *Subcommittee on Population Problems:*
Edwin B. Wilson, *Chairman.*
William F. Ogburn.
Dugald C. Jackson.

Staff: Edward P. Hutchinson, Senior Research Technician.

(*b*) *Roster of Scientific and Specialized Personnel:*
Cooperatively with Civil Service Commission and now with War Manpower Commission.
Leonard Carmichael, Consultant, Director of Roster.
James C. O'Brien,[2] Executive Officer.
Philip H. Marenburg, Executive Officer, with the assistance of Consultants.

Cooperating agencies:
American Council on Education.
American Council of Learned Societies.
National Research Council.
Social Science Research Council.

(*c*) *Committee on the Conservation of Cultural Resources:*
Waldo G. Leland, *Chairman*, Director of American Council of Learned Societies.
Dan Lacy, Executive Secretary, The National Archives.
Robert F. Beresford, American Institute of Architects.
Julian P. Boyd, Librarian, Princeton University.
Solon J. Buck, Archivist of the United States.
John E. Burchard, Executive Officer, Committee on Passive Protection Against Bombing, National Research Council.
Lester J. Cappon, Consultant in Archives and History, University of Virginia.
C. C. Crittenden, Secretary, North Carolina Historical Commission.
A. E. Demaray, Associate Director, National Park Service.
Luther H. Evans, Chief Assistant Librarian of Congress.
David E. Finley, Director, National Gallery of Art.
Collas G. Harris,[2] Executive Officer, The National Archives.
Pendleton Herring, Executive Secretary, Committee on Records of War Administration, Bureau of the Budget.
Ronald F. Lee,[2] Supervisor of Historic Sites, National Park Service.
Archibald MacLeish, Librarian of Congress.
Col. M. C. Mapes, Office of Civilian Defense.
Carl H. Milam, Executive Secretary, American Library Association.
Col. Walter P. O'Brien, Chief, Civil Defense Branch, Services of Supply, War Department.
W. E. Reynolds, Commissioner, Public Building Administration.

4. Youth and Education

Floyd Reeves, Consultant; Paul Mort; and Dudley Harley.[2]

Lawrence K. Frank, Consultant; and Edward P. Hutchinson.

5. Conference on Post War Adjustment of Personnel

Floyd Reeves, *Chairman.*

Lt. Col. Francis T. Spaulding, Special Services Branch, in charge of education, War Department.

Gen. Lewis B. Hershey, Director, Selective Service System.

[2] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.

5. Conference on Post War Adjustment of Personnel—Con.

Brig. Gen. Frank T. Hines, Director, Veterans' Administration.

Edward C. Elliott, Chief, Professional and Technical Employment and Training, War Manpower Commission.

William Haber, Chairman; Planning Committee, War Manpower Commission.

T. J. Woofter, Director of Research, Federal Security Agency.

A. F. Hinrichs, Bureau of Labor Statistics.

Howard R. Tolley, Chief, Bureau of Agricultural Economics, Department of Agriculture.

Lt. Comdr. Ralph A. Sentman, United States Navy (retired).

Francis J. Brown, Secretary, Joint Army and Navy Committee on Welfare and Recreation.

Staff: Floyd Reeves, Consultant; and Leonard Outhwaite.

Division B

Assistant Director Ralph J. Watkins

1. Industrial Section

Glenn E. McLaughlin, Chief of Section.

Wilbert G. Fritz, Assistant Chief of Section; James V. Alfriend; Oscar Endler; Wilfred Owen; William Powell; Samuel H. Thompson; Ernest Williams, Jr.; Marion Worthing; William Wynne; and supporting staff.

(*a*) *Advisory Committee on Transportation:*

Owen D. Young, *Chairman*, Honorary Chairman and Member of the Board, General Electric Co.

Dr. George P. Baker,[2] *Vice Chairman*, Civil Aeronautics Board.

Joseph B. Eastman, Director, Office of Defense Transportation, Chairman, Interstate Commerce Commission.

Robert H. Hinckley, Assistant Secretary, Department of Commerce.

Jesse H. Jones, Secretary of Commerce, and Federal Loan Administrator.

Rear Admiral Emory S. Land, Administrator, War Shipping Administration.

Thomas H. MacDonald, Commissioner, Public Roads Administration.

Maj. Gen. Eugene Reybold, Chief of Engineers, War Department.

Staff: Ralph J. Watkins, Wilfred Owen, Ernest Williams, Jr., and supporting staff and consultants.

(*b*) *Energy Resources Committee:*

Ralph J. Watkins, *Chairman*, Assistant Director, National Resources Planning Board.

Captain A. B. Anderson, Chief, Plans Division, Office of Chief of Naval Operations.

Arno C. Fieldner, Chief, Technologic Branch, Bureau of Mines, Department of the Interior.

George A. Lamb, Chief, Economics Branch, Bituminous Coal Division, Department of the Interior.

Abe Fortas, Under Secretary, Department of the Interior.

John W. Frey, Director of Marketing, Office of the Petroleum Coordinator for National Defense, Department of the Interior.

Leland Olds, Chairman, Federal Power Commission.

Maj. Gen. H. K. Rutherford, Office of Under Secretary, War Department.

Harry Slattery, Administrator, Rural Electrification Administration.

Joel D. Wolfsohn, Assistant Commissioner, General Land office.

Staff: Samuel H. Thompson, Wilbert G. Fritz, and supporting staff and consultants.

2. Land Section

John B. Bennett, Chief of Section, and Secretary, Land Committee; and Hollis W. Peter.

(*a*) *Land Committee:*

William I. Myers, *Chairman*, Head of Department of Agricultural Economics and Farm Management, College of Agriculture, Cornell University.

Oscar L. Chapman, Assistant Secretary, Department of the Interior.

Charles C. Colby, Professor of Geography, University of Chicago.

Philip H. Cornick, Institute of Public Administration.

M. S. Eisenhower,[2] Assistant Director, Office of War Information.

Charles A. Lory, President Emeritus, Colorado State College of Agriculture and Mechanical Arts.

Lee Muck, Assistant to the Secretary in Charge of Land Utilization, Department of the Interior.

R. L. Thompson, President, Federal Land Bank of New Orleans.

H. R. Tolley, Chief, Bureau of Agricultural Economics, University of Wisconsin.

[1] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.

2. Land Section—Continued

(*a*) *Land Committee*—Continued.

E. H. Wiecking, Land Use Coordinator, Department of Agriculture.

Joel D. Wolfsohn, Assistant Commissioner, General Land Office.

Subcommittees:

1. *Evaluation.*—Charles A. Lory, *Chairman;* Charles C. Colby; Lee Muck; George S. Wehrwein; and E. H. Wiecking.
2. *Land Classification.*—Charles C. Colby, *Chairman;* Carlton Barnes; J. F. Deeds; and Donald Hudson.
3. *Land Acquisition.*—M. S. Eisenhower,[2] *Chairman;* Charles C. Colby; George S. Wehrwein; and Joel D. Wolfsohn.
4. *Recreational Benefits (Joint with Water Resources Committee).*—Joel D. Wolfsohn, *Chairman;* Col. Earl North [2]; Mark Regan; Col. Gordon E. Textor; and C. L. Wirth.
5. *Rural Urban Fringe.*—Philip Cornick, *Chairman;* Charles C. Colby; E. H. Wiecking; George S. Wehrwein; and Joel D. Wolfsohn.
6. *Tax Delinquency.*—George S. Wehrwein, *Chairman;* Philip H. Cornick; Hugo Schwartz; and Joel D. Wolfsohn.
7. *Public Land Management.*—George S. Wehrwein, *Chairman;* Oscar L. Chapman; John Gaus; Lee Muck; and Howard Tolley.

Division C

Assistant Director Frank W. Herring

1. Water Resources Section

John W. Dixon, Chief of Section; Brent S. Drane; and Daniel V. McCarthy.

(*a*) *Water Resources Committee:*

Baldwin M. Woods, *Chairman,* Professor of Mechanical Engineering, University of California.

Carlton P. Barnes, Associate Coordinator, Office of Land Use Coordination, Department of Agriculture.

W. W. Horner, Consulting Engineer, St. Louis.

Leland Olds, Chairman, Federal Power Commission.

John C. Page, Commissioner, Bureau of Reclamation.

Glenn L. Parker, Chief Hydraulic Engineer, Water Resources Branch, United States Geological Survey.

Col. Theodore B. Parker, Chief Engineer, Tennessee Valley Authority.

Maj. Gen. Eugene Reybold, Chief of Engineers, United States Army.

Thorndike Saville, Dean, College of Engineering. New York University.

R. E. Tarbett, Sanitary Engineer Director, United States Public Health Service.

E. H. Wiecking, Land Use Coordinator, United States Department of Agriculture.

Subcommittees:

1. *Cooperative Investigations.*—J. J. Doland, *Chairman;* John C. Page; F. L. Weaver; Col. Earl North [2]; Col. Miles Reber; and Ernest H. Wiecking.
2. *Small Water Projects.*—Perry A. Fellows, *Chairman;* R. W. Davenport; A. R. Golze; C. S. Jarvis; L. A. Jones; Francis R. Kenny; T. W. Norcross; Col. Earl North [2]; Col. Gordon E. Textor; E. F. Preece; Archie Ryan; Charles E. Ryder; and A. L. Wathan.
3. *State Water Law.*—Philip M. Glick *Chairman;* Clifford E. Fix; W. W. Gatchell; Wells A. Hutchins; Joseph W. Kimbel; R. M. Patrick; and Walter Williams.
4. *Gila River Basin.*—Judge A. W. McHendrie, *Chairman.*
5. *Hydrologic Data.*—Thorndike Saville, *Chairman;* Donald M. Baker; H. K. Barrows; Merrill Bernard; Gail Hathaway; W. W. Horner; W. G. Hoyt; R. J. Tipton; and E. H. Wiecking.
6. *Water Pollution.*—Abel Wolman, *Chairman;* W. B. Bell; Arno C. Fieldner; Elmer Higgins; Thorndike Saville; R. E. Tarbett; Col. Earl North [2]; and Col. Gordon E. Textor.
7. *Recreational Benefits (Joint with Land Committee).*—Joel D. Wolfsohn, *Chairman;* Col. Earl North [2]; Col. Gordon E. Textor; Mark Regan; and Conrad L. Wirth.
8. *Drainage Basin Committees.*—W. W. Horner, *Chairman;* Glenn L. Parker; and E. H. Wiecking.

2. Federal Program Section

Robert W. Hartley, Chief of Section; and supporting staff.

3. Public Works Project Review Section

John W. Dixon, Chief of Section; John B. Bennett; Reginald C. Price; and Alf Z. Nelson.

[2] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.

3. Public Works Project Review Section—Continued

(*a*) *Public Works Project Review Committee:*

Thorndike Saville, *Chairman*, Dean, College of Engineering, New York University.
James J. Doland, Professor of Engineering, University of Illinois.
Lee Muck, Assistant to Secretary in Charge of Land Utilization, Department of Interior.
E. N. Munns, Chief, Division of Forest Influences, Department of Agriculture.
Leland Olds, Chairman, Federal Power Commission.
John C. Page, Commissioner, Bureau of Reclamation.
Col. Miles Reber, Office of Chief of Engineers, United States Army.
Maj. Gen. Eugene Reybold, Chief of Engineers, United States Army.
E. H. Wieeking, Land Use Coordinator, Office of Land Use Coordination, Department of Agriculture.

4. State and Local Program Section

Sidney T. Thomas, Chief of Section.

Field Offices

Region No. 1.—Boston, Massachusetts

Cooperating with New England Regional Planning Commission.
State Planning agencies of Connecticut, Massachusetts, New Hampshire, Rhose Island, and Vermont.
New England Council.
Maine Rivers Drainage Basin Committee.
Central New England Drainage Basin Committee.
Staff: Victor M. Cutter, Regional Chairman; Roland B. Greeley; and supporting staff.
Consultants:
H. I. Baldwin,[2] Land Planning.
A. Brinser,[2] Community Planning.
A. S. Carlson, Regional Trends Reporting.
A. C. Comey, General and Community Planning.
W. S. Parker, Public Works Programming.
G. M. Fair, Drainage Basin Committee.
D. L. Palmer,[2] Regional Industrial Location.
J. M. McDaniel, Jr.,[2] Regional Trends Reporting.

Region No. 2.—Baltimore, Maryland

Cooperating with Interstate Commission on the Delaware River Basin.
Interstate Commission on the Potomac River.
State planning agencies of Maryland, New Jersey, New York, North Carolina, Pennsylvania, Virginia, and West Virginia.
Sponsoring Committee, Niagara Frontier Planning Project.
National Capital Park and Planning Commission.
New York Intrastate Drainage Basin Committee.
New Jersey, New York Coastal Drainage Basin Committee.
Delaware Drainage Basin Committee.
Susquehanna Drainage Basin Committee.
Chesapeake Bay Drainage Basin Committee.
Roanoke to Pee Dee Drainage Basin Committee.
Staff: Morton L. Wallerstein, Regional Chairman; Alexander Fleisher, Head Economist; John W. Hyde; John L. Lincoln;[2] William H. Ludlow; and supporting staff.
Consultants:
R. V. Black, General and Community Planning.
V. O. Key, Community Planning.
C. L. Feiss,[2] Community Planning.
H. G. Baity, Drainage Basin Committee.
R. Eliassen,[2] Drainage Basin Committee.
J. C. Geyer,[2] Drainage Basin Committee.
C. J. Velz, Drainage Basin Committee.
T. F. Hubbard, Public Works Programming.
G. Platt,[2] Public Works Programming.

Region No. 3.—Atlanta, Georgia

Cooperating with Southeastern Regional Planning Commission.
State planning agencies of Alabama, Florida, Georgia, Kentucky, Mississippi, South Carolina, and Tennessee.
Santee-Altamaha Drainage Basin Committee.
Mobile-Suwanee Drainage Basin Committee.
Peninsular Florida Drainage Basin Committee.
Tennessee-Cumberland Drainage Basin Committee
Pearl-Pascagoula Drainage Basin Committee.
Staff: Henry T. McIntosh, Regional Chairman; Claud Clayton; Counselor; William R. Davlin;[2] Ernest J. Hopkins; E. Bruce Wedge; H. Jay Wallace;[2] and supporting staff.
Consultants:
F. P. Folmar, General Planning.
S. H. Hare,[2] Drainage Basin Committee.
G. W. Simons, Jr., Drainage Basin Committee and Community Planning.
H. J. Friedman,[2] Community Planning.
G. Gimre, Community Planning.
H. B. Campbell, Community Planning.
A. S. Keister, Field Office Program.
L. L. Hidinger, Drainage Basin Committee.

[2] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.

Region No. 4.—Indianapolis, Indiana

Cooperating with Midwest Regional Planning Commission.
Northern Lakes States Regional Committee.
State planning agencies of Illinois, Indiana, Michigan, Minnesota and Wisconsin.
Upper Ohio-Beaver Drainage Basin Committee.
Kanawha Drainage Basin Committee.
Muskingum to Miami Drainage Basin Committee.
Big Sandy to Green Drainage Basin Committee.
Wabash-Lower Ohio Drainage Basin Committee.
Upper Great Lakes Drainage Basin Committee.
Lake Erie Drainage Basin Committee.
Mississippi Headwaters to Wisconsin Drainage Basin Committee.
Rock to Big Muddy Drainage Basin Committee.

Staff: Louis Wirth, Regional Chairman; Paul E. Middleton, Counselor; Lawrence V. Sheridan;[2] Herbert W. Starick; Robert N. Cross; John Lehman; John M. Picton;[2] and supporting staff.

Consultants:
L. Wirth, General Planning.
L. Segoe, Community Planning.
A. L. Trout, Community Planning.
A. G. Anderson, Regional Industrial Location.
J. J. Doland, Drainage Basin Committee.
W. W. Horner, Drainage Basin Committee.
M. W. Torkelson, Drainage Basin Committee.
L. K. Sherman,[2] Drainage Basin Committee.
K. W. Armstrong, Community Planning.
G. Gimre, Community Planning.
E. D. Pierce,[2] Community Planning.
G. S. Wehrwein, General Planning.

Region No. 5.—Dallas, Texas

Cooperating with South-Central Regional Planning Council.
State planning agencies of Arkansas, Louisiana, Oklahoma, and Texas.
Central Arkansas to Canadian Drainage Basin Committee.
Upper St. Francis to Verdigris-Lower Arkansas Drainage Basin Committee.
Upper Red-Washita Drainage Basin Committee.
Lower Red-Ouachita Drainage Basin Committee.
Lower Mississippi Drainage Basin Committee.
Sabine to San Jacinto Drainage Basin Committee.
Brazos to Nueces Drainage Basin Committee.
Lower Rio Grande-Pecos Drainage Basin Committee.

Staff: Earl O. Mills, Regional Chairman; Edwin Henson, Counselor; Royden E. Reed; Ronald B. Shuman;[2] Julian W. Tarrant; Richard Ives;[2] Ervin K. Zingler; and supporting staff.

Consultants:
L. L. Hidinger, Drainage Basin Committee.
W. W. Horner, Drainage Basin Committee.
H. F. Thomson, Drainage Basin Committee.
R. J. Tipton, Drainage Basin Committee.
A. W. Bettman,[2] Planning Legislation.
L. P. Cockrill,[2] Community Planning.
S. R. De Boer, Community Planning.

Arkansas Valley Project Consultants: R. C. Martin, P. W. Milam, P. C. Nahl, A. M. Paxson, R. D. Thomas, A. Hoffman, M. Mitchell, and T. H. Frederick.

Region No. 6.—Omaha, Nebraska

Cooperating with Missouri Valley Regional Planning Committee.
Tri-State Waters Commission.
Missouri River States Committee.
State planning agencies of Kansas, Missouri, North Dakota, and South Dakota.
Hudson Bay Drainage Basin Committee.
Iowa Eastern Drainage Basin Committee.
Keokuk to Meramec Drainage Basin Committee.
Missouri Headwaters-Yellowstone Drainage Basin Committee.
Middle Missouri Drainage Basin Committee.
Lower Missouri Drainage Basin Committee.

Staff: Philip H. Elwood, Regional Chairman; T. Hillard Cox;[2] Dennis O'Harrow;[2] H. Dale Bossert;[2] and supporting staff.

Consultants:
S. H. Hare,[2] Community Planning.
J. Noyes, Community Planning.
H. H. McCarty, Industrial Location.
W. W. Horner, Drainage Basin Committee.
H. Shifrin,[2] Drainage Basin Committee.
H. F. Thomson,[2] Drainage Basin Committee.

Region No. 7.—Denver, Colorado

Cooperating with Mountain States Research Council.
The Pecos Joint Investigation.
State planning agencies of Wyoming, Colorado, and New Mexico.
Sponsoring Committee, Denver Metropolitan Planning Project.
Upper Rio Grande Drainage Basin Committee.
Upper Arkansas Drainage Basin Committee.
Platte River Drainage Basin Committee.

[2] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.

Region No. 7.—Denver, Colorado—Continued

Staff: Clifford H. Stone, Regional Chairman; Harlowe M. Stafford, Counselor; ElRoy Nelson,[2] Robert L. Lowry,[2] and supporting staff.

Consultants:

F. L. Carmichael, Industrial Location.
W. W. Horner, Drainage Basin Committee.
H. F. Thomson, Drainage Basin Committee.
J. C. Stevens, Drainage Basin Committee.
R. J. Tipton, Joint Investigation.
N. A. Parker, Industrial Location.
M. E. Garnsey, Regional Trend Reporting and Industrial Location.
I. J. McCrary,[2] Community Planning.
S. R. De Boer, Community Planning.

Region No. 8.—Berkeley, California

Cooperating with State planning agencies of Arizona, California, Nevada, Utah, and the Hawaii Territorial Planning Board.
Colorado Drainage Basin Committee.
Bonneville Drainage Basin Committee.
Lahontan Drainage Basin Committee.
Northern California-Klamath Drainage Basin Committee.
California Central Valley-Central Coast Drainage Basin Committee.
Southern California Coast Drainage Basin Committee.

Staff: Baldwin M. Woods, Regional Chairman; L. Deming Tilton, Consultant; Van Beuren Stanbery, Counselor; Colin A. Taylor; D. Ross Miller; and supporting staff.

Consultants:

S. R. De Boer, Community Planning.
I. S. Shatlack,[2] Community Planning.
T. H. Humpherys, Public Works Programming.
L. D. Tilton, General and Community Planning.
R. D. Calkins, Industrial Location.
A. G. Coons, Industrial Location.
J. C. Stevens, Drainage Basin Committee.
W. L. Huber, Drainage Basin Committee.
R. L. Campbell,[2] Community Planning.

Region No. 9.—Portland, Oregon

Cooperating with Pacific Northwest Regional Planning Commission.
Puget Sound Regional Planning Commission.
State planning agencies of Idaho, Montana, Oregon, and Washington.
Pacific Northwest Drainage Basin Committee.
Pacific Northwest Regional Council.
Columbia Basin Project—Joint Investigation.
Bonneville Power Administration.

Staff: Benjamin H. Kizer, Regional Chairman; Roy F. Bessey, Counselor; Otto W. Croy; Thomas O. King; and supporting staff.

Consultants:

W. B. Stewart,[2] Regional Industrial Location.
S. B. Morris, Drainage Basin Committee and Pacific Northwest Land.
J. H. Vogel, Community Planning.
H. D. Freeman, Community Planning.
J. D. Wood, Pacific Northwest Land and Community Planning.
H. F. Aumack,[2] Community Planning.
F. A. Cuthbert,[2] Community Planning.
R. O. Oscaron,[2] Mineral Resources.
A. N. Nybroten, Pend Oreille area analysis.

Region No. 10.—Juneau, Alaska

Temporarily located in Portland, Oregon, for duration of the war.
Cooperating with Canada-United States Joint Economic Committee.

Staff: James C. Rettie, Counselor; Gordon L. Wildes[2]; George Sundborg; Joseph L. Fisher: and supporting staff.

Consultants:

H. B. Foss,[2] Community Planning.
C. McKinley, General Planning.

Region No. 11.—San Juan, Puerto Rico

Cooperating with Anglo-American Caribbean Commission.
Puerto Rico Planning Board.
Puerto Rico Water Committee.
Puerto Rico Agricultural Planning Committee.
Puerto Rico Industrial Development Company.

Staff: Frederic P. Bartlett, Manager; Louis Sturcke, Jr.; Donald F. Griffin; and supporting staff.

Consultants:

A. W. Bettman, Planning Legislation.
L. C. Segoe, Community Planning.
B. S. Drane, Drainage Basin Committee.
J. J. Haggerty, Land Planning.

[2] Persons not active as of December 1942, due to Military Leave, resignations, etc. This designation applies throughout.